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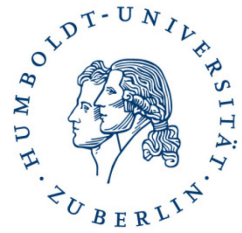
Rural Transformation in Sub-Saharan Africa

Conceptual Study

Theo Rauch, Gabriele Beckmann, Susanne Neubert, Simone Rettberg



April 2016



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Humboldt-Universität zu Berlin
Lebenswissenschaftliche Fakultät
Albrecht Daniel Thaer-Institut für Agrar- und Gartenbauwissenschaften
Seminar für Ländliche Entwicklung (SLE)
Hessische Str. 1-2
10115 Berlin
Telephone: 030-2093-6900
Fax: 030-2093-6904

email: sle@agrار.hu-berlin.de

Website: www.sle-berlin.de

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The Centre for Rural Development (SLE) is affiliated to the Albrecht Daniel Thaer Institute for Agricultural and Horticultural Sciences in the Faculty of Life Sciences at the Humboldt-Universität zu Berlin. Its work focuses on four strands: international cooperation for sustainable development as a post-master degree course, training courses for international specialists in the field of international cooperation, applied research, and consultancy services for universities and organizations.

The objective of the research project "*Towards a Socially Inclusive and Ecologically Sustainable Rural Transformation in Africa*" is to identify strategies, instruments and measures that will help to forge a more socially inclusive and ecologically sustained rural transformation in Sub-Saharan Africa. The project itself is a constitutive component of the ONE WORLD, NO HUNGER Special Initiative financed by the Federal Ministry for Economic Cooperation and Development (BMZ).

Prof. Dr. Theo Rauch, Associated Senior Research Fellow

email: theorauch@gmx.de

Gabriele Beckmann, Associated Senior Research Fellow

email: gabbeck@web.de

Dr. Susanne Neubert, Seminar für Ländliche Entwicklung

email: susanne.neubert@agrar.hu-berlin.de

Dr. Simone Rettberg, Associated Senior Research Fellow

email: sim.rettberg@gmail.com

Abstract

The present study on rural transformation in Sub-Saharan Africa is understood as a conceptual contribution to the research project “*Towards a Socially Inclusive and Ecologically Sustainable Rural Transformation in Africa*”. Its purpose is to show rural transformation trends in Sub-Saharan Africa (SSA), to identify the drivers, to outline current debates on its design and to assess this against the backdrop of empirical findings. Macro-analysis of post-colonial transformation in SSA shows that despite burgeoning urbanization and the tripling of agricultural production since the 1960s – roughly in tune with population growth – only an extremely mild form of transformation has taken place so far when measured against conventional indicators (agricultural productivity growth, shifts between sectors). Almost two-thirds of all households still live foremost from the land. Heightened production was widely based on a growth in the agricultural labour force, which cultivated additional crop land with virtually unaltered methods. Urbanization, on balance, is the result of a shift in sources of income within diversified rural-urban livelihood systems from farm to off-farm income. The latter stems primarily from informal, unproductive and often precarious activities, and must be considered a supplement rather than a genuine alternative to on-farm sources of income. Lack of dynamic growth in stable off-farm income-generating activities was therefore the chief stumbling block to rapid structural change in SSA. Accelerated rural transformation in the form of intensified farm production, however, is a trend that has been observed since 2008 and was brought about by rising global demands for agricultural goods and a growing scarcity of natural resources. Shaping this transformation sustainably calls for inclusion of the overwhelming majority of poor small-scale farmers in a process of ecology-based farm intensification. Coupled with this is the need for enhanced off-farm sources of income. A strategy that focuses on the exit of farm labour from agriculture, however, will lead to social exclusion unless vibrant growth in productive off-farm employment opportunities is forthcoming.

Key words

Structural change; rural transformation; rural development; small-scale farmers; rural-urban migration; agricultural sector; rural-urban livelihood systems; socially inclusive development; ecology-based intensification; Sub-Saharan Africa

Executive summary

1. The ***Study on Rural Transformation in Sub-Saharan Africa*** is a preliminary concept for the research project "*Towards a Socially Inclusive and Ecologically Sustainable Rural Transformation in Africa*" to be carried out by the Centre for Rural Development (SLE) as part of the ONE WORLD, NO HUNGER Special Initiative under the Federal Ministry for Economic Cooperation and Development. The aim is to show rural transformation (RT) trends in Sub-Saharan Africa (SSA) and their drivers and impacts, as well as to outline and assess current debates on the concept of rural transformation.
2. **Definition:** RT is understood here as a long-term multi-dimensional process of change to core features of the economies and livelihoods of rural people, taking into account their exposure to global dynamics and society as a whole. This understanding departs from the more conventional definition based on the pattern of industrial countries that focuses exclusively on the transition from rural-agricultural to urban-industrial societies. Broadening our perspective allows for visions of rural transformation that could take a different path under different historical conditions.
3. Analysis of the data and the contexts involved shows that ***historical patterns of rural transformation*** in European and East Asian industrial countries, which are characterized by the relocation of value added and employment from the agricultural to the industrial sector, are not a viable option in SSA today. The findings indicate that rural transformation based on strengthening agricultural productivity by simultaneous reduction of farm labour has succeeded only where a labour-intensive industrialization process protected from international competition was strong enough to absorb this labour force. Under current global economic conditions, there is little hope that this model would work in SSA.
4. ***Colonial transformation of rural economies and livelihoods in SSA*** took the form of partial market linkage and monetarization of the rural economy and rural society. This saw subsistence production supplemented by seasonal family labour, farm surpluses and self-employed economic activity. On the whole, the small-holder structure of society has survived to the present day, albeit with growing social and spatial distinctions in line with the degree of market integration.
5. Analysis of ***development dynamics in post-colonial SSA*** based on generalized macro-data illustrates that rural transformation is still sluggish. Agricultural productivity has not increased in any great measure, neither has there been a marked shift from farm to more productive non-farm sectors. A rise in the number of – predominantly unproductive – services has, however, emerged from the search for supplementary non-farm sources of income. In other words, transformation has occurred for the most part as part of a change within increasingly flexible and diversified rural-urban livelihood systems, with a slight shift towards non-farm (or non-livestock farming) sources of income and continued maintenance of subsistence production. The analysis of the driving forces and their dimensions indicates that
 - an **economic shift** from the agricultural sector to non-farm income generation based on increased agricultural activity (i.e., transformation adhering to the industrial country pattern) was frustrated by poor employment dynamics in urban industrial sectors and low agricultural prices (in conjunction with mostly high transport costs);

- ***institutional transition*** to privatization, deregulation, decentralization and more democracy has had only a limited spatially and socially selective impact on development dynamics in the rural regions;
 - on the whole, ***trade and agricultural policies*** – regardless of what phase or country – failed to produce broad-based incentives to transform rural socio-economic structures;
 - ***patterns of value and behaviour*** in diversified, multi-local, rural-urban livelihood systems continue to oscillate between traditional and modern biases and between community-based subsistence and individualist market logic. This explains opposing trends in the preservation and erosion of family support systems as the mainstay of subsistence, a limited capacity for risk and the persistence of high birth rates;
 - degradation and insecurity pose a growing threat to ***natural livelihoods, i.e., to forest, water, fertile land and (agri-)biodiversity***, processes that are aggravated by the impact of climate change.
6. The coincidence of mounting natural resource degradation and a fresh dynamic in global agricultural markets triggered ***accelerated rural transformation***, a process observed ***from 2008 onwards***. Growing demand and the simultaneous declining of natural resources generates pressure to intensify production, on the one hand, along with the incentives to do so, on the other. At the same time, most of the long neglected small-scale farms dispose of varying degrees of underutilized potential¹ to expand and intensify production. Activating the potential of these small-holders in the interests of poverty reduction and food security, however, calls for enhanced institutional frameworks as well as guaranteed access to markets and tailored services. This is one of the core challenges to be met when it comes to designing RT strategies for SSA that are socially inclusive and ecologically sustainable.
7. Several major ***framework conditions*** pertinent to RT in Sub-Saharan Africa today are radically different to those in the old European industrial countries of the nineteenth century and the emerging East Asian economies of the late twentieth century:
- Today we are no longer looking at closed national economies but economies that are open and integrated in the world market. Given global competition, this complicates the creation of labour-intensive industry to absorb the labour force released from agriculture and to increase domestic market demand for farm products. At the same time, however, it facilitates access to the international marketing of these commodities.
 - Opportunities to emigrate abroad are limited at present.
 - Agricultural development no longer relies heavily on outputs from national industries. Consumer goods are now imported without further ado and available to a growing urban middle class. Inputs and production technologies are likewise imported. These, however, are sometimes far more costly than in the country of origin and must be paid with scarce foreign currency.

1 Consensus has not yet been reached on the degree to which pastoralism has the potential to intensify.

Contrary to many industrial countries, the driving force for RT in SSA is not the call for an industrial labour force but the growing demand for agricultural commodities on the global market.

8. Considering the current scientific and political debates on conceptualizing RT in SSA the following **strategic options** can be distinguished:

- Option A: Radical transformation based on large-scale commercial agriculture and small-holder redundancy.
- Option B: A smooth transition based on the commercialization of resource-rich small-holders combined with stabilization of the subsistence economy or the exit from agriculture for the majority of resource-poor small-holders.
- Option C: Structural change primarily within the agricultural sector with a concurrent development of non-farm sectors involving most of the small-holders.
- Option D: Stabilization of autonomous small-scale peasant production rather than commercialization of agricultural production.

These options diverge notably in their assumptions about small-holder potential and the capacity of off-farm sectors for absorption.

9. **Conclusion:** The analysis of structural change at the macro-level in SSA presented in this study suggests that socially inclusive and ecologically sustainable rural transformation under the prevailing conditions of a world (open) economy is best achieved in the rural areas by intensifying the use of resources by the majority of small-holders, based for the most part on their unexploited potential. Although developments in non-farm sectors play a vital complementary role, they can only absorb a fraction of the constantly growing rural population. In other words, this concept of rural transformation comes closest to suggestions made by the proponents of Option C. We should bear in mind, however, that conditions vary from country to country and from one region to another so that greater differentiation and adjustments harvested from the empirical analyses in the case studies concerned in the research project can be expected.

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List of abbreviations

LF	Labour force
AU	African Union
GDP	Gross Domestic Product
BMZ	Federal Ministry for Economic Cooperation and Development
GNI	Gross National Income
CAADP	Comprehensive Africa Agriculture Development Programme
CBO	Community-Based Organization
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GIZ	Gesellschaft für Internationale Zusammenarbeit
GLASOD	Global Assessment of Human-Induced Soil Degradation
IFAD	International Fund for Agricultural Development
IC	Industrial countries
NTEP	Non-traditional export products
RA	Rural areas
RT	Rural transformation
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
p.a.	per annum
p/d	person/days
SADCC	Southern African Development Coordination Conference
SDG	Sustainable Development Goals
SEWOH	Special Initiative ONE WORLD, NO HUNGER
SLE	Centre for Rural Development
SSA	Sub-Saharan Africa
UNEP	United Nations Environment Programme
WB	World Bank
WDI	World Development Indicators
WWF	World Wide Fund for Nature

1 Introduction

The present study on rural transformation in Sub-Saharan Africa (SSA) is the conceptual contribution to the research project “*Towards a Socially Inclusive and Ecologically Sustainable Rural Transformation in Africa*” of the Centre for Rural Development (SLE). The research project is one of six commissioned by the BMZ within the scope of the Special Initiative ONE WORLD, NO HUNGER to be carried out by several German research centres.

The aim of the Special Initiative is to “combat hunger and malnutrition in today’s world and create conditions that will enable future generations to guarantee food security for a growing global population” (BMZ 2015, 12). The rural transformation of low- and middle-income countries is one of six focal points. The Initiative is convinced that hunger and poverty can only be abolished if rural areas are transformed in a way that will prevent social exclusion and sustain the environment.

The aim of the research project is to gain a better grasp of the factors and dynamics involved in rural transformation in Africa and to explore the strategies and measures best suited to the task of making it socially inclusive and ecologically sustainable.

The present study is a preliminary conceptual paper that summarizes the discourse on rural transformation (RT) in Sub-Saharan Africa (SSA) and positions the research project in a regional and global context. It points to transformation trends, identifies drivers and impacts, and outlines implementation strategies under review in current discourse. The study furthermore explains *social inclusion* and *ecological sustainability* as normative points of reference and makes them operational. This allows research questions in the case studies to be expressed in more specific terms. It gives decision-makers in BMZ, development agencies and the SEWOH research projects an insight into the discussion on this topic and points to interfaces between their own themes and the discourse on rural transformation.

Hence analysis takes centre stage in this study. The final chapter draws strategic conclusions on the implementation of rural transformation in SSA, taking into account ongoing controversial debates on its design in low- and middle-income countries. The conclusions are preliminary and make no attempt to anticipate the findings of the research project. They remain general in nature. This is due to the preludial tenor of the study but also to regional distinctions and the need to draw up context-related strategies that involve local actors. The conclusions should therefore be seen as a contribution to global political debate on the concept of RT. Our overall perspective in doing so – in accordance with our assignment – is not the initiation of socio-economic processes of transformation but ensuring that these are shaped in a manner that is socially inclusive, ecologically sustainable and, importantly, economically viable.

Chapter 2 explains the terms structural change and rural transformation. Since current debates on these terms are partly aligned to the historical transformation model used in OECD countries and the emerging economies of East Asia, **Chapter 3** will outline these processes and their historical setting. Given that processes of rural transformation in Sub-Saharan Africa are the focus of this study, **Chapter 4** takes a brief look at their historical background and the face of transformation in the colonial era. **Chapters 5 and 6**, the main body of the study, deal with processes of structural change in SSA from 1960 to the present, with emphasis on their current dynamics and multi-dimensional

character. **Chapter 5** is devoted to the economic, institutional, political, social and environmental aspects of transformation in the rural areas of SSA, and identifies its drivers and impacts. **Chapter 6** summarizes the core features and linkages of this multi-dimensional process in a holistic manner. It also explores the specific characteristics of transformation in pastoral, that is, mobile livestock farming systems, the importance of which is frequently underestimated. **Chapter 7** outlines the controversial professional discussion on RT in SSA. It assesses different approaches to RT against the background of the findings from Chapter 6 and the normative reference values of social inclusion and ecological sustainability. The chapter concludes with hypotheses for empirical analysis.

Statements made in this study refer to Sub-Saharan Africa as a whole and should therefore be understood as aggregated or generalized data. More sophisticated distinctions were made only in the case of pronounced regional differences (and partly referring to the case study countries concerned). A multi-dimensional analysis of transformation processes calls for consideration of numerous aspects, not all of which can be examined here in depth or verified with watertight facts and figures. We attached great importance, nonetheless, to verifying empirical core statements on transformation processes as accurately as possible with the available data. At the same time, it should be noted that these can only be approximate values, since data collection in small-holding and pastoral farms and livelihood systems is nothing if not challenging.

The study therefore presents important background information and material for discussion of the case studies to be carried out in 2016 in the frame of the research project. It is hoped that as many aspects as possible raised here will be empirically researched, underpinned, complemented and differentiated.

2 Definition of rural transformation

Rural transformation (RT) is part of a more comprehensive transformation of society as a whole. The term *structural transformation* will first be elaborated and an analytical model presented. This is followed by several definitions of rural transformation, from which one working definition will be derived for the research project, employing the overall social understanding of the term.

Structural transformation is perceived as a long-term process of change in the essential features of human existence.² As a rule it is multi-dimensional and influenced by a number of factors at several spatial levels. Vital here is the mutual impact of structural framework conditions and the agency of social actors.

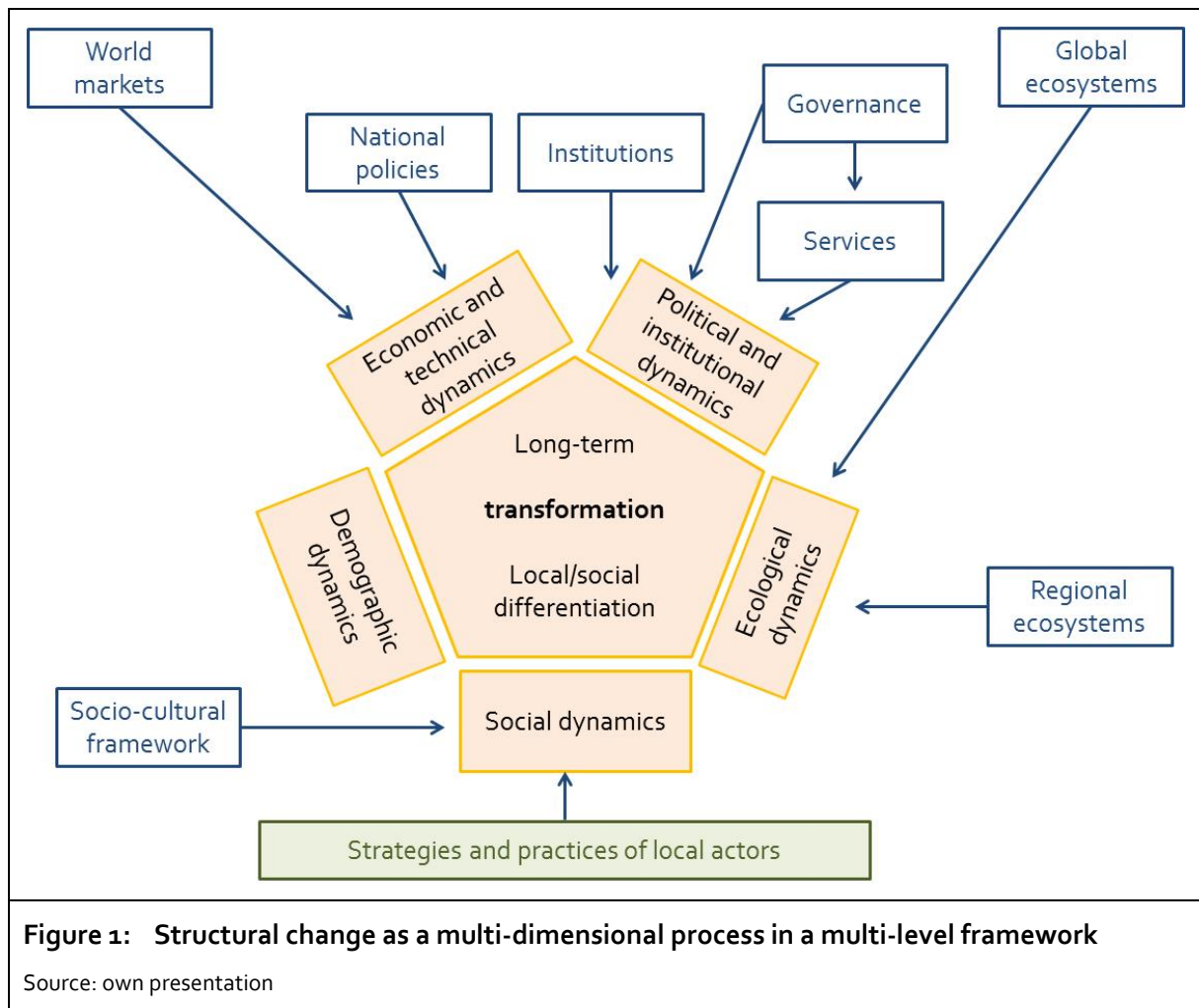
Multi-dimensional process: This process of change sees the dynamic interweaving of economic/technical, demographic, socio-cultural, political/institutional, and ecological factors. Profound technological changes (e.g., digitization, mechanization) coincide with changes in livelihoods and the use of natural resources, and their associated emissions. This also holds true for changes in modes of institutional regulation, as in the transition from state or informal regulation to market regulation. These are usually accompanied by far-reaching changes in social relations, power relations or resource uses. Hence analysing social change calls for a multi-dimensional approach.

Multi-level approach: Social transformation or structural change is rarely the result of political will or deliberate planning but rather a process that is affected by several factors at several spatial levels (Fig. 1): global market dynamics (e.g., globalization, oil price trends, financial markets), ecosystem dynamics (e.g., degradation through increased exploitation of natural resources, climate change), national policies and institutions (e.g., privatization, deregulation), regional socio-cultural conditions and, finally, the strategies and capacities of local actors and institutions for action are in constant interaction and impact heavily on processes of structural change. It follows that root-cause analysis and the shaping of transformation design demands a multi-level approach that takes this interaction into account.

Long-term perspective: Transformation is generally a long-term process that is often only in retrospect identified as such. Consequently, political approaches to the shaping of these processes necessitate a long-term perspective.

Social and spatial differentiation: Social transformation rarely takes place in the same way at different locations and for different social groups. It is frequently a matter of interdependent processes of socio-spatial differentiation associated with inclusion and exclusion. These occur in different regions at different locations for different sectors and social groups in highly different forms. In other words, in addition to the national perspective it entails analysis by regional type, an empirical procedure envisaged in the research project.

2 The *Politiklexikon* defines the term as follows: "Transformation describes the occurrence of changes or adaptations that are of ... a profound nature, that is, establish entirely new relations ... or demand an entirely new order." (Schubert & Klein 2011).



The professional discussion on **rural transformation** is largely shaped by an economist perspective. Centre stage in numerous definitions (cf. Timmer 2009; Berdegúe, Rosada & Bebbington 2011; Freguin-Gresh, White & Losch 2012) is the transition from rural-agrarian to urban-industrial or service societies. This process is mostly characterized – taking the pattern of industrialized countries as a model – as

- a sectoral shift in the form of a decline in the share of agriculture in the gross national income (GNI) and in the working population, and a corresponding increase in the industrial and service sector share,
- accompanied by rural-urban migration and improved agricultural productivity corresponding to a shift in farm sizes and types, and
- a demographic transition from high to low birth and death rates.

Several authors (particularly Berdegúe et al. 2011) furthermore stress the attendant societal change in the rural areas³, which is marked by stronger diversification of the rural economy and the urbanization of rural lifestyles.

³ A definition of “rural area” will not be attempted here. Conventional features such as the agricultural sector share, population density and settlement forms differ greatly from one country to another and are therefore ill-suited as markers of a strictly drawn and globally valid boundary (cf. Berdegúe et al. 2011).

This understanding of rural transformation is an approximate description of the historical process undergone by most industrial countries (including several emerging economies in East Asia) and through which they emerged from mass poverty to achieve economic growth and a certain degree of prosperity (cf. Chapter 3). For this reason it could serve as a model for the design of future social change in Sub-Saharan African societies, which are primarily shaped by agriculture and still stricken by abject poverty and food insecurity. Any premature narrowing down of the analysis to this model, however, harbours the risk of

- a. diverting attention from other forms of transformation taking place on the ground in rural areas with different historical conditions; in SSA, for example, this would apply to the transformation of extensive hunting and gathering economies or pastoralism to stationary crop farming economies or from a subsistence to an export economy, and of
- b. seeing this model per definition as the only conceivable normative framework, thereby assuming the possibility of low and middle-income countries undergoing a process of catching-up development, albeit under different historical conditions⁴ (cf. Chapter 3).

Hence rural transformation oriented towards the goals of “social inclusion and ecological sustainability” calls for an open approach that does not adhere a priori to the narrow interpretation of RT in other models. This wider understanding allows for identification, analysis and interpretation of processes of change that are actually taking place on the ground. In this sense and bearing in mind the definition of social transformation mentioned earlier, this study and the subsequent empirical analyses that build on it operate with the following definition of rural transformation:

Rural transformation is understood here as a long-term process of change of fundamental characteristics of the economies and livelihoods of people in the rural areas, taking wider societal and global dynamics into account.

4 “The evolutionist view that underlies the canonical model of economic transition is insufficiently questioned today, given the new configuration of the global economy. (It) understates the role of specific historical conditions” (Losch, Freguin-Gresh, White / World Bank 2012).

3 Historical processes of rural transformation

3.1 Rural transformation in the old European industrial countries

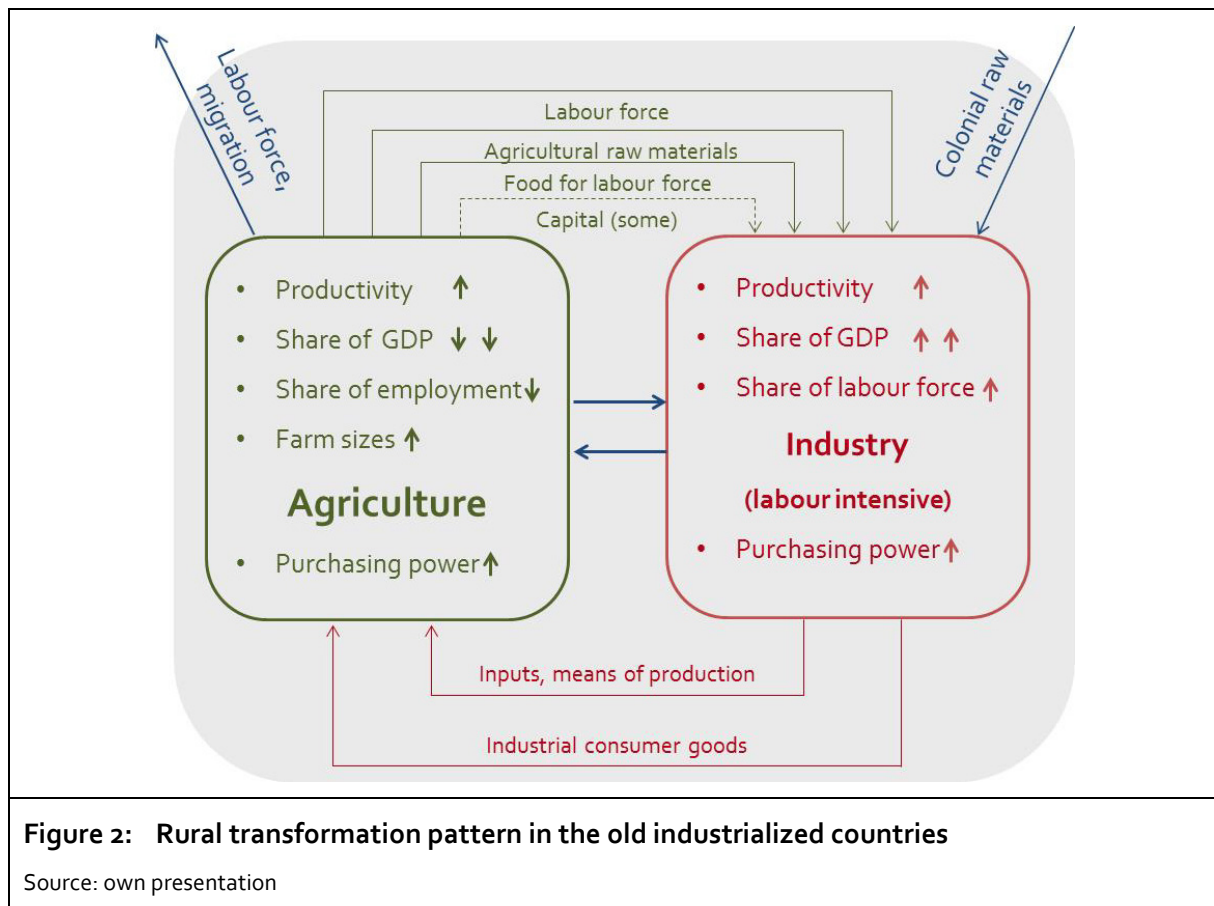
Great Britain, the trail blazer of industrialization, began transformation from an agrarian to an industrial society in the mid-eighteenth century. Most countries in mainland Europe followed suit in the course of the nineteenth century. The process is still ongoing and, among other things, the object of European Union agricultural policies. Given the impact of this pattern on the current debate on rural transformation in low- and middle-income economies, it seems reasonable to explore the extent to which this model might serve to eradicate poverty in these countries.

In terms of European structural change, rural transformation and industrialization were and still are – in a general sense – tightly interlinked within the framework of national economies (cf. Fig. 2): the increase in agricultural productivity derived from capital investment and technology advancement paved the way for industrial development by releasing not only a labour force but also agricultural inputs and foodstuffs for the growing number of urban industrial workers. In addition, capital accumulated within the agricultural sector was frequently invested in industry. At the same time, fast-growing industrial production (including services) ensured the transfer of the means of production, industrial inputs and knowledge to raise agricultural productivity and guarantee farm workers a supply of industrial goods (Timmer 2009).

Debates in the 1950s revolved around this reciprocal process and the extent to which its point of departure lay in agricultural progress or industrialization (Lewis 1954, Kuznets 1955, Chenery 1960). Correspondingly, several developing countries set their sails on fostering industrialization, while others paid greater attention to rural development. It makes little sense today to reiterate the finer points of these disputes. What counts is the knowledge that steady growth in agricultural productivity combined with a release of the agricultural labour force has hardly ever been achieved without a more or less simultaneous process of industrialization. Timmer (2009, p. 5) concludes from his analyses that “Unless the non-agricultural economy is growing, there is little long-run hope for agriculture”. The European experience likewise shows that industrialization processes were always accompanied by a rise in agricultural productivity (Freguin-Gresh et al. 2012). Variations of this idealized European nation-state model resulted from the availability of mineral and agricultural resources in the respective country and the access to colonial raw materials⁵ and foreign labour markets⁶. Noteworthy here is the high labour intensity of industrial production in late eighteenth and nineteenth-century Europe. The capacity to absorb the agricultural labour force released from the land was therefore quite high.

5 Such variations included England's dependence for industrialization on cotton and vegetable oils from abroad, emigration as a result of modernizing agriculture without the corresponding industrialization, and the “brutal” transformation via dispossession effected in the British Isles compared to the gradual, cushioned version that occurred in Germany and France (Wiggins 2014, after GIZ 2014).

6 Sixty million Europeans or 0.2% of the population emigrated annually to the “New World” between 1850 and 1930 (Freguin-Gresh et al. 2012). Today, no more than 200 000 inhabitants of Sub-Saharan Africa, i.e., 0.02% of the population, make it to Europe and the United States per annum (UNDESA 2013).



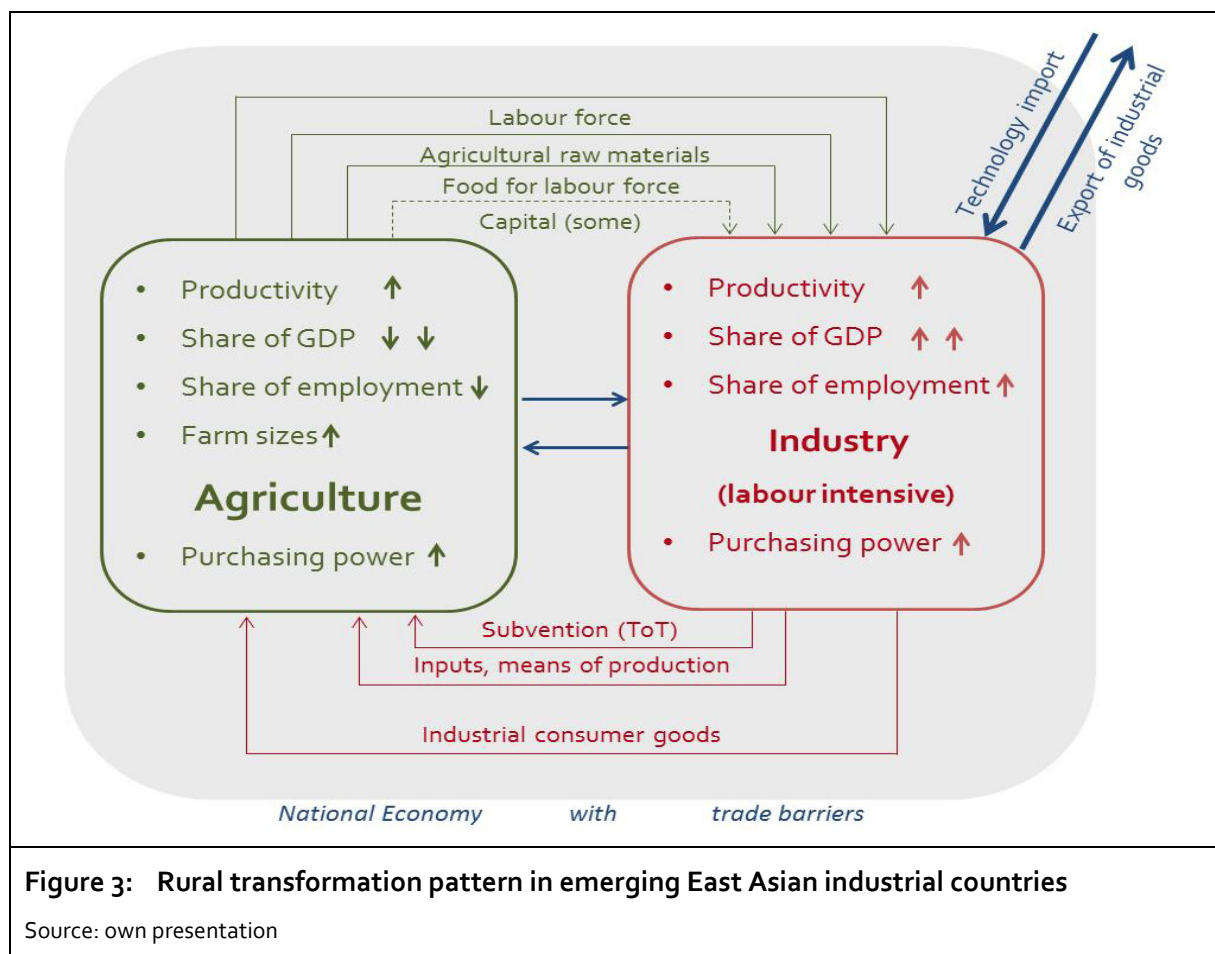
An important political aspect here is the distribution side of the transformation process: the more mechanized industrial production becomes, i.e., non-labour intensive, the less capacity there is to absorb workers into the manufacturing industry. If the workers remain on the land and have to be employed there, agricultural labour productivity will be low and the wage disparity between industry and agriculture will increase. Agricultural subsidies filled the gap in European countries and managed to contain unwelcome migration from the rural to the urban. Timmer (2009) shows, on the other hand, that all over the world this gap has widened progressively since 1965, notably after 1990 as a result of global industrial competition.

3.2 Rural transformation in the emerging economies of East Asia

In the course of processes of catching up since the 1970s, the newly industrializing countries of East Asia⁷ also saw a tight link between rural development and processes of industrialization and urbanization. Egalitarian reforms in agriculture and an active policy of industrialization are regarded as vital pillars for labour-intensive processes of growth. Not unlike the situation in nineteenth-century continental Europe vis-à-vis England, industrialization in these countries was shielded at the outset by protectionist policies against the more competitive, older industrial nations. They not only relied on the initially limited domestic market but also on export-oriented industrialization (Menzel 1986). Within a few decades, the vibrancy of industrialization and urbanization had made it possible,

⁷ Notably South Korea, Taiwan and China, and Malaya and Thailand to a certain extent.

and at the same time necessary, to increase area productivity in the agricultural sector⁸. Nonetheless, farm sizes remained small, with recent decades showing only a slight increase.⁹ By introducing price incentives to the benefit of farm producers, East Asian governments sought to keep the number of migrating farm labourers confined to the capacity of the industrial sector to absorb them (Timmer 2009). Hence emerging East Asian economies were no different from the European pattern in as much as rural transformation was accompanied by a labour-intensive process of industrialization. In their case, however, contrary to mainland European patterns, foreign trade relations, i.e., access to export markets for industrial goods and technology imports, played a key role from the outset (Fig. 3).



Conclusion: Rural transformation based on enhanced agricultural productivity and a reduction in the number of farm workers only flourished where a labour-intensive industry had the productive capacity to employ those workers. This is the key lesson learnt from the transformation processes outlined here. It is highly unlikely that this pattern can be reproduced under current global economic conditions (cf. also Losch et al. / World Bank 2012, Döber & Kappel 2015).

⁸ Of major importance here was the technology to improve rice productivity using high-yield varieties. It allowed labour-intensive small-scale farming systems to increase surplus production substantially.

⁹ Farm sizes in South Korea increased from 0.9 to 1.4 ha between 1970 and 2005 and in China from 0.55 to 0.6 ha between 2000 and 2010 (OECD 2008); Huang, Wang & Qiu 2012).

4 Rural transformation in Sub-Saharan Africa in the colonial era

Understanding the transformation processes that took place during the colonial era is vital to the analysis of post-colonial dynamics and will be addressed briefly in the following.

Prior to the colonial era, Sub-Saharan Africa was generally characterized by village, small-holder or pastoral societies with urban centres of industry and trade embedded in long-distance trade relations.¹⁰ While agricultural production primarily served subsistence needs, the modest surplus was used for trading purposes in the barter economy.

The colonial era saw partial integration of most rural families into the market within the frame of incorporating African colonies into the global economy as suppliers of raw material and a market for industrial goods. Depending on whether agricultural or mineral resources were in greater demand, Africans were drawn into the market as producers of farm surplus or as wage workers (e.g., for plantations or the mines). While most small-holder or pastoral structures from that time have survived, specific regions saw the emergence of settler colonies (e.g., South Africa, Zimbabwe, Kenya) or plantation economies (Liberia, parts of Ivory Coast and Malawi). The dynamics of the market economy were, however, too anaemic to provide a substantial section of the rural population with sound livelihoods, leaving market integration incomplete and the subsistence economy in place (cf. Iliffe 1997). Technological change was likewise limited: "Africa entered colonialism with a hoe and left with a hoe" (Rodney 1972).

Conclusion: Colonial transformation of rural production methods and rural livelihoods consisted of partial market integration and monetarization of rural society and its economy. This was achieved by supplementing the subsistence regime with seasonal family labour (frequently young men), farm surplus production and small-scale industrial trade activities. Urbanization levels at the end of the colonial era had reached approximately 10%. Although small-holder structures remained the backbone of society in most countries, social and regional differentiation increased in accordance with the measure of market integration.

¹⁰ The emergence of states, which was accompanied by urbanization and the division of labour, was stronger in West Africa than in East or southern Africa.

5 Rural transformation in SSA from 1960 to the present: dimensions und drivers

This chapter first of all presents rural transformation processes in light of their various dimensions, also reflecting the perspective of different disciplines on these processes. The analysis of each dimension (a) outlines key trends, (b) discusses hypotheses on the drivers and (c) examines the impact of these trends on social inclusion, ecological sustainability and – taking account of the SEWOH target aims – food security. Bearing in mind the different perspectives, Chapter 6 follows up with their synthesis.

5.1 Economic dimension: changing livelihoods under the influence of global and national markets

Long-term changes in the economic sources of livelihood of the population and the driving forces behind them are now the focus of attention. Trends derived from the available data will be presented and interpreted, followed by hypotheses on their determining factors and socio-economic impacts. Distinctions are made between trends in long-term transformation processes since Independence and more recent trends since the boom in agricultural prices in 2008.

a. Trends

A look at the average indicator values for SSA (cf. Table 1) reveals that since Independence rural transformation has been taking place in most African countries at best in a highly modest form compared to the European pattern:¹¹

1. The share of the agricultural sector in the gross domestic product (GDP) and in employment has declined steadily since the end of the colonial era. The process has accelerated in the last decade, which was marked in most countries by above-average economic growth.
2. The share of the manufacturing industry, however, remained stagnant at a low level. Following deregulation and the expansion of globalized markets in the 1990s, the majority of African countries experienced de-industrialization (Kormawa & Jerome 2014).

¹¹ Changes to the composition of household income by source are not recorded in the official statistics (Losch /WB 2013); any reference to change is based on household surveys, for which comparable figures from earlier decades are non-existent. Findings from all livelihood case studies, on the other hand, show similar trends. In other words, the results bundled here may not be very precise but can be seen as “vaguely right” (according to Chambers).

Table 1: Trends in SSA from 1961 to 2013

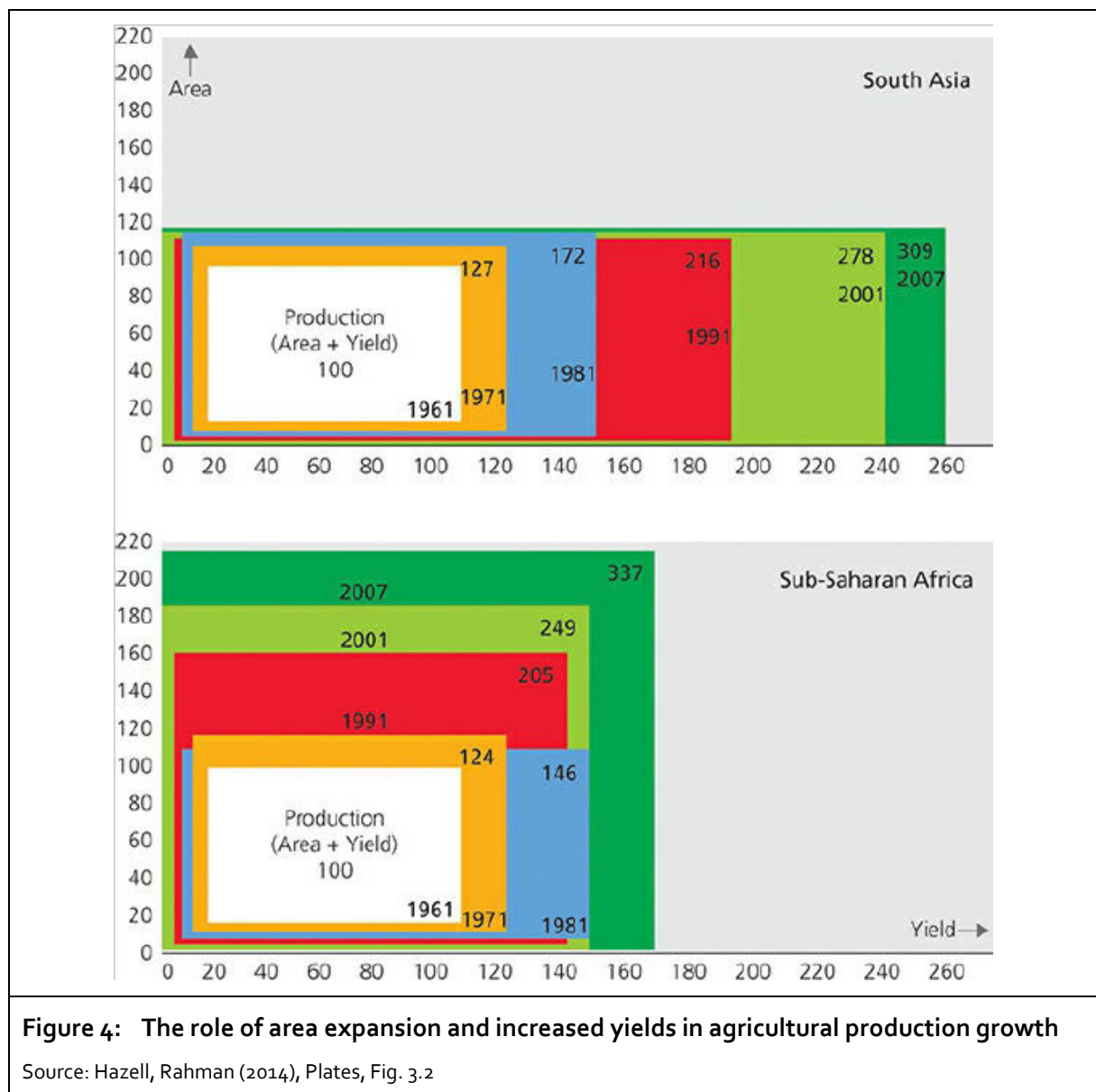
Factor	1961	1990	2013
Share of agricultural sector in GDP / GNI (%)	43	35	27
Share of agricultural sector in working population (%)	83	70	62
Share of rural population (%)	87	74	63
Number of rural inhabitants (m.)	180	330	536
Population growth rate (%)	2.6	2.8	2,5
Cereal production p.a. (m. t) ¹²	30	57	123
Cereal production / per capita p.a. (t)	0.150	0.130	0.145
Cereal production/ per capita of rural population (t)	0.17	0.17	0.23
Cereal area harvested (m. ha)	40	57	86
Cereal yields (t/ha)	0.75	1.0	1.42
Average farm size (ha)	1,6	1,5	1,6
Harvested area (ha) pro farm labourer	1.04	0.83	0.85
Share of manufacturing industry in GDP (%)	n.a.	13	11
Share of manufacturing industry in working population (%)	n.a.	5	4,6
Share of service sector in rural population (%)	n.a.	25	33
			2010
Farm income share of household income (%)			60-70
Subsistence share of food production (%)			60
Increase in working population p.a. (m.)			15
Increase in formal employment p.a. (m.)			2
Share of rural population in extreme poverty (< \$1/p/d)			40
Sources: FAOSTAT 2014, World Bank WDI, ILO 2013, Binswanger-Mkhize 2012, Losch, Freguin-Gresh, White (World Bank) 2012, Rauch 2012. Macro figures for SSA without South Africa.			

- Over the last decade some countries have shown evidence of a vibrant modern service sector (e.g., motor vehicle and electric repairs, IT services, food value chains) accompanied by a boom in mineral resources and a corresponding expansion of domestic demand (Ethiopia, Kenya and Ruanda are frequently quoted as examples) (Badiane & McMillan 2014, Reardon et al. 2014). Most of the poor, however, still have to rely for employment on precarious low-income segments of the service sector (Haggeblade et al. 2010).
- Although the share of the rural population has dropped from 37 to 63%, the absolute number and with it rural population density has tripled in the last five years. Trends show a progressive increase in the rural population up to at least 2050.

¹² The share of cereal production in the total value for agricultural products has remained stable (Binswanger-Mkhize 2012), making it an indicator for agricultural production.

5. There is a marked increase – particularly since 2000 – in informal, less productive and precarious activities in the service sector (Badiane / McMillan 2014; World Bank 2014). Badiane & Makombe (2014) speak of a “negative transformation” in this context, that is, a relocation of the labour force to less productive non-farm sectors.
6. An annual increase of around fifteen million young people approaching working age faces merely a two million increase in formal and therefore secure employment opportunities (Losch et al. 2012). This forces the overwhelming majority of those in the growing manpower reservoir to earn a living from insecure activities with extremely low levels of income and productivity (Haggeblade et al. 2012). According to Haggeblade et al., it is highly unlikely that the expanding rural non-farm sector in the marginalized regions of Sub-Saharan Africa can create sufficient job security for the rural poor.
7. Although rural production has experienced less growth in proportion to the total population, it has increased a great deal more than the rural population. Food deficits have diminished since the year 2000. Most small-scale producers were in a position to adapt production to the growing demand¹³.
8. Approximately 60% of improved production is due to the expansion of cultivated areas and approx. 40% to a rise in area productivity. In other words, unused crop areas were cultivated by an additionally available labour force. A rise in area productivity based on local-specific farm innovations such as mineral fertilizer was often the case where crop land shortage made it imperative to safeguard crop yields or to manage the transition from semi-permanent to permanent cultivation. Labour productivity has risen only slightly (ReSAKSS – ECA 2011), since the overwhelming majority of African small-scale farmers still cultivate their fields either exclusively with a hoe or with a plough, following up with a hoe to combat weeds (cf. Figure 4).
9. Numerous estimates (reliable comparative data unavailable) indicate that farm sizes remained in principle unchanged (Livingston, Schonberger & Delaney 2014; GLZ 2014). Even where extra land was available, crop land expansion was/is thwarted by limited labour capacities or lack of demand. Stable averages are certainly to be seen as a result of opposing regional trends. Declining farm sizes in densely populated small-holder regions face an increase in sizes in other regions, where urban elites have bought up land (Jayne et al. 2014c).

13 Even taking it as read that larger, more commercialized farms had an above-average share in the expansion of production, it can be assumed that most food production increases are due to a growing number of small-scale producers extending their cultivation areas.



This picture of a somewhat cautious transformation derived from macro-data as presented so far is by and large confirmed by household level surveys (cf. Freguin-Gresh et al. 2015¹⁴):

1. The diversified small-holder livelihood systems that had already emerged by the end of the colonial period with their mix of subsistence production, market production and wage labour/migration survived for the most part. Rural households (apart from a few that were landless) still work the land as their main source of income.
2. The share of food crops in agricultural production value seesaws between 60 and 80%, an average 60% of which is used for self-consumption (cf. Figures 5 and 6).

¹⁴ The cross-continent farm household analysis conducted by Freguin-Gresh et al. within the frame of the 2007/2008 World Bank RuralStruc project included four SSA countries (Kenya, Mali, Senegal, Madagascar) and covered between 1000 to 1200 representative rural households.

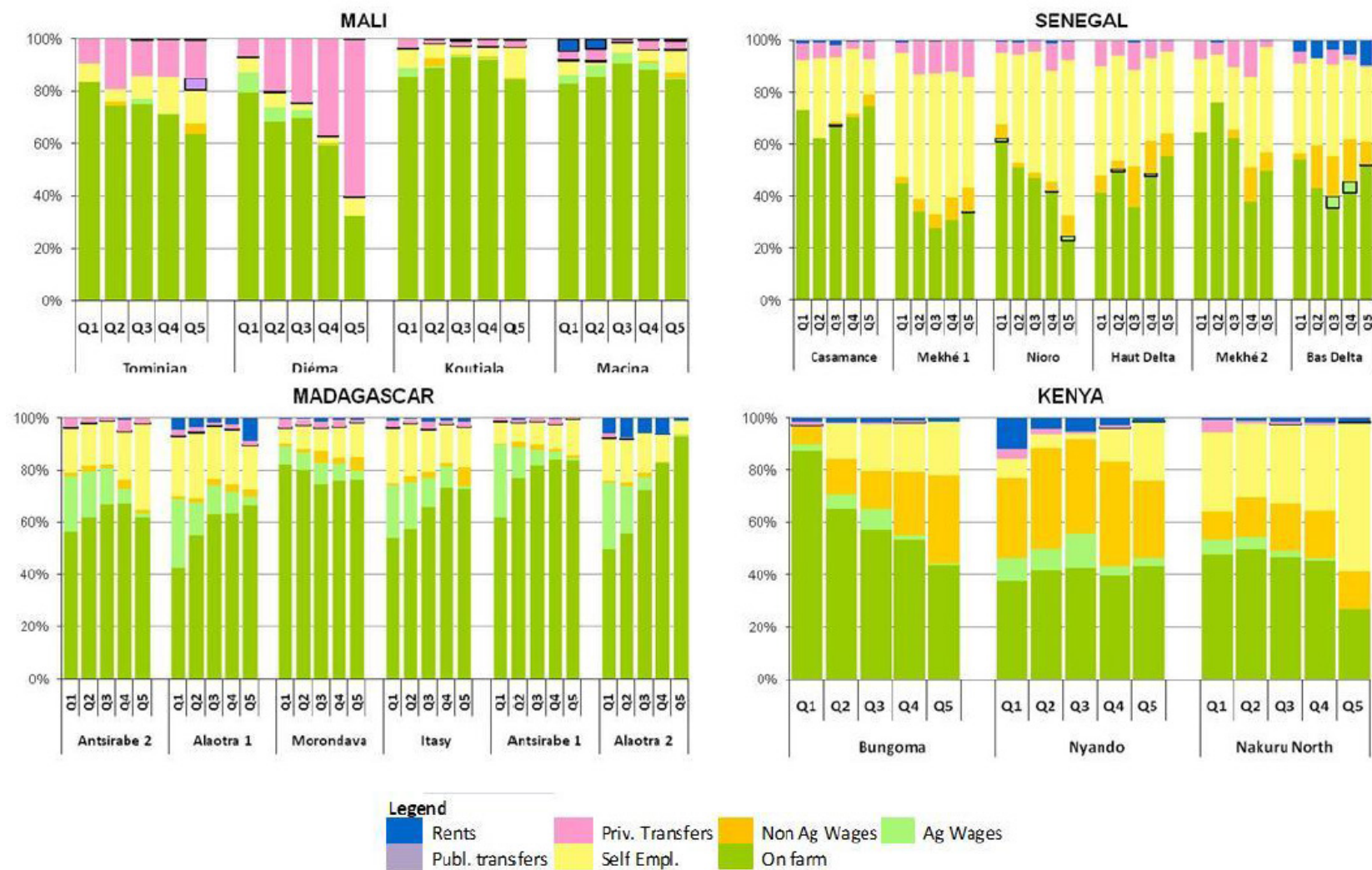
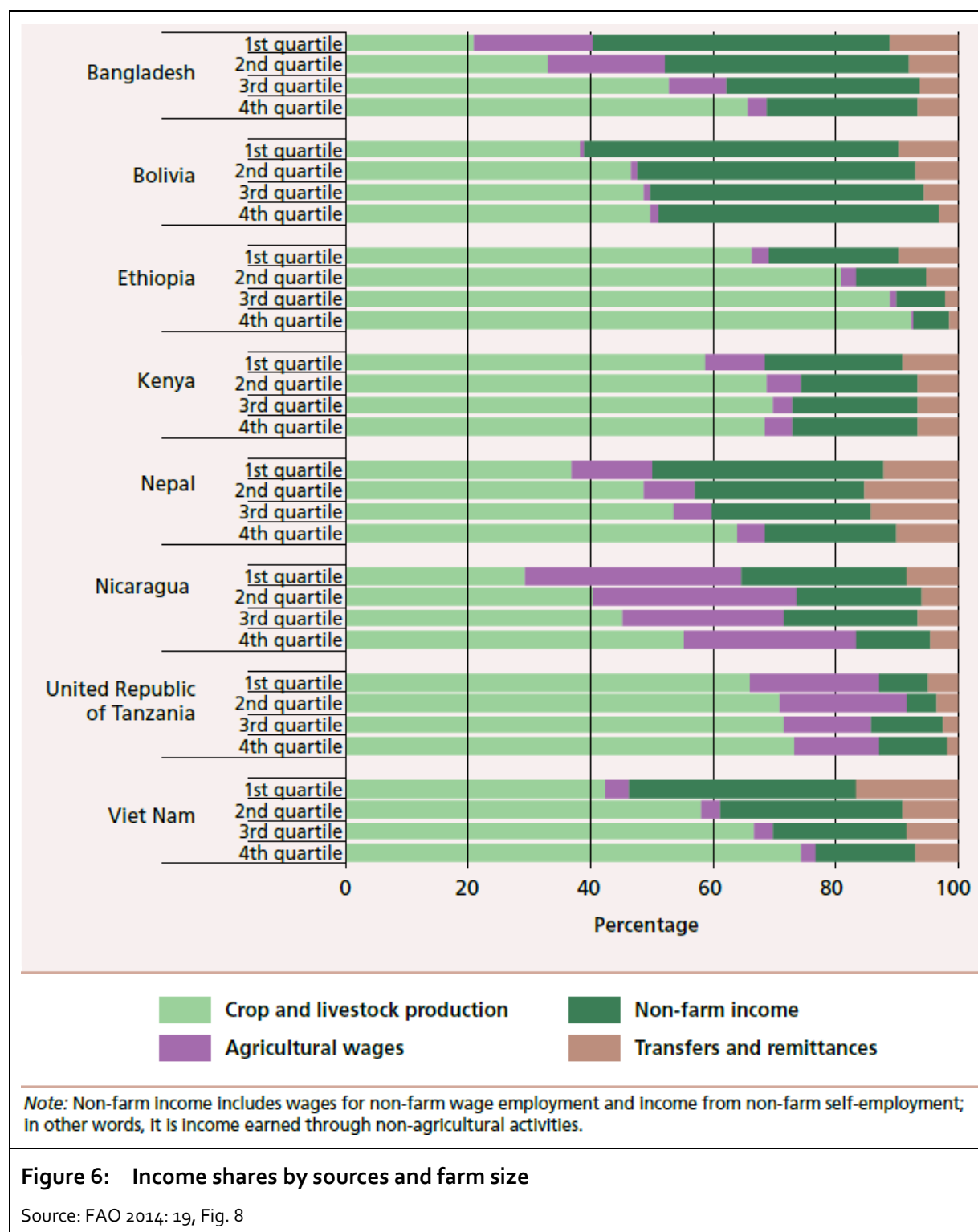


Figure 5: Share of farm household income sources

Source: Freguin-Gresh; White, Losch (2012): Figure 2



3. Despite the absence of comparative data from the 1960s, many livelihood analyses (cf. Losch et al. / WB 2012) indicate that a general shift in favour of non-farm sources of income has taken place in rural family households. An accelerated trend in the direction of rural-urban livelihood systems has been observed in several countries since the 1990s (Scoones 2009, Bebbington & Batterbury 2001). Women in the family household frequently take on an increasing share of agricultural activities, i.e., remain in the village with the children and the elders, while notably young men seek employment in the cities or abroad. Another option is seasonal or circular migration: men leave for the cities in the dry season to supplement their income with wage labour and return in the rainy season to help the family in the fields (see Chapter 5.4).
4. Since this process leads neither to a marked increase in agricultural productivity nor to more productive and secure urban employment, it should be understood as a continuation of the classic, but now broadened, risk reduction strategy at a precarious level (Losch et al. / WB 2012; Haggeblade et al. 2010). Accordingly, rural poverty rates continue to be high.
5. This rough image of a high degree of continuity in the straddling of subsistence production, market production and wage labour with gradual shifts in the direction of non-farm or urban sources of income calls for regional and social differentiation: in agriculturally favourable regions near cities and markets with access to national and global value chains, market integration has risen. This also holds true for households with better access to resources. Consequently the socio-economic differentiation of the rural population has risen sharply (OECD 2006; IFAD 2010; cf. Chapter 6.1).

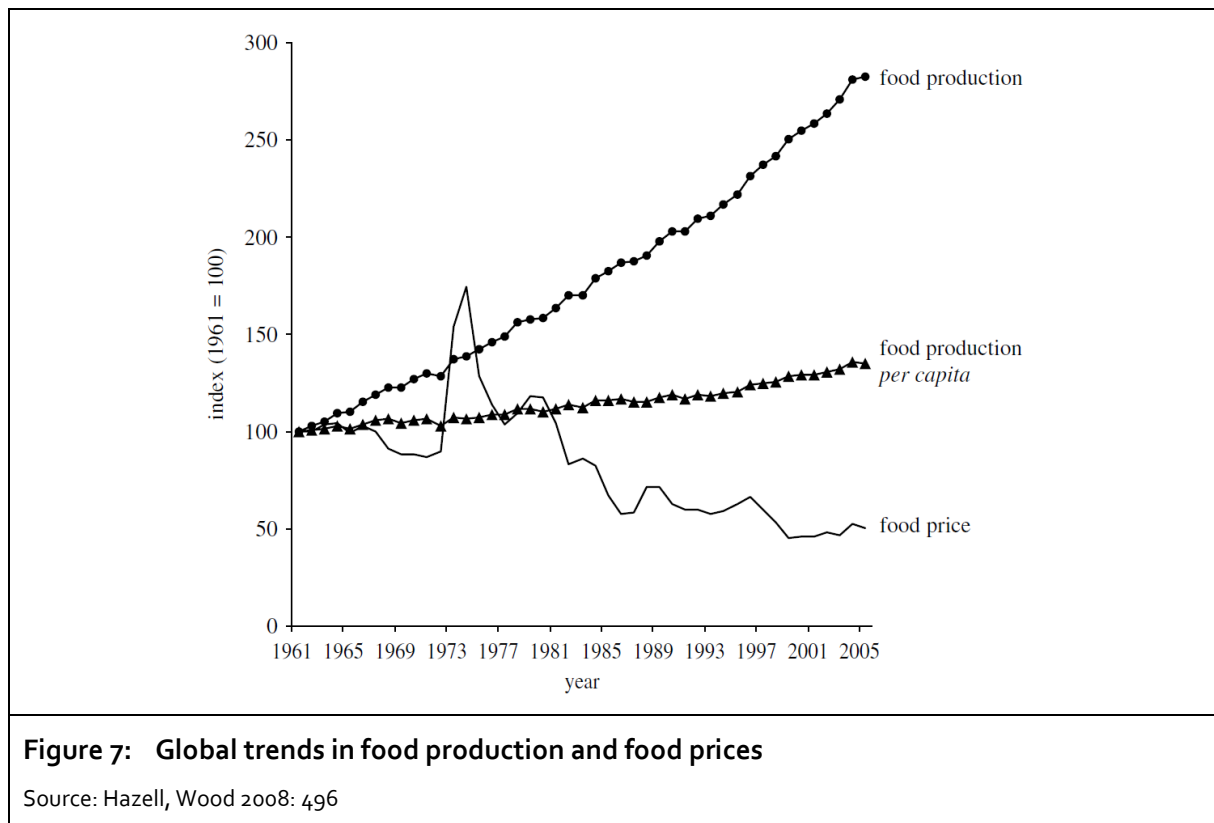
The mid-2000s – notably after the boom in agricultural pricing in 2007/2008 – saw an acceleration in processes of change in the rural areas of SSA. Growing demand for agricultural products at higher prices enhances the prospects for agricultural intensification, which in turn could lead to a more rapid transformation process. It is impossible to predict at this stage what dynamic this process will have in the different regions concerned. At the same time, it is imperative to reflect now on its possible course and its shaping. This calls for identification of the driving forces behind the process and its potential impact.

b. Drivers

The economic drivers of change are distinguished by level in the following:

At the global level a distinction is made between drivers of agricultural development and those of non-farm sectors.

1. The **agricultural sector** was characterized by an oversupply on the world markets **up to 2005**. This led to low world market pricing (cf. Figure 7), a critical factor that contributed to the lack of vibrancy in the agricultural sector in Sub-Saharan Africa (von Braun 2008). Low producer price levels resulted in low or no investment in agriculture. Production was adjusted to demand with the aid of extended crop areas and an additional labour force (Rauch 2012, Hazell & Wood 2007).



Deregulation and privatization of agricultural markets in the 1990s was accompanied by a sharp increase in international competition (also on the African domestic markets)¹⁵ and greater control of agricultural markets by a small minority of international agro-business concerns and supermarket chains (van der Ploegh 2010). Although this opened up new export avenues for African small-holders (particularly in the area of non-traditional export goods), it has also meant stiffer competition on the home markets (Hazell et al. 2007; Kormawa & Jerome 2014; Döber & Kappel 2015). Access to export markets was restrained by high market entry barriers arising from long distances and the high quality standards of importing countries, so that – if at all – it could only be achieved at small-holder level with the aid of contract farming. The attitude of small-holders to contract farming, however, was ambivalent: on the one hand, it guaranteed reliable creditors for inputs and buyers for yields, but left/leaves them in most countries (if prices are not cushioned by the state) utterly defenceless in the face of volatile prices on global commodity markets (cf. also Ouma 2010, Neubert et al. 2011).

Global market conditions in relation to agriculture have undergone radical change **since 2008**. Although predictions have meanwhile been questioned that saw a long-term trend in rising agricultural prices, that is, the terms of trade biased in favour of farm producers (cf., for example, von Braun 2008) given the price drop in the last two years, the FAO anticipates that sharp fluctuation notwithstanding, agricultural price levels will in the long run remain above the level that prevailed before 2007/2008 (OECD / FAO 2015). This expectation is based on the following trends:

¹⁵ Hazell et al. (2007) speak in this context of “deprotection” combined with a decline in employment.

- growing demand as a result of population growth,
 - increased purchasing power of new middle classes in middle-income countries,
 - accelerated shortage of land and other natural resources,
 - long-term rise in energy prices (despite current all-time low¹⁶),
 - search for new capital investment opportunities accompanied by growing land investments and speculation on food stock exchanges.
 - Prices for (mostly) imported agricultural inputs (particularly mineral fertilizer) developed in part disproportionately and in part parallel to world market agricultural price levels, so that profit margins grew/are growing at a far slower rate than producer prices. Agricultural products for domestic consumption, such as maize in southern Africa, which were likewise treated with mineral fertilizer, albeit to a minor degree, even suffered a disadvantage from this constellation. As national agricultural prices failed to keep up with rising global market prices but inputs were subject to these price mechanisms, it was a constellation that ultimately led in many cases to a deterioration of farm incomes.
2. The poor dynamic in **non-farm sectors** stems from the inability of large areas of traditional small-scale industrial production to compete with the overpowering and often subsidized global markets. This applies in equal measure to the low-efficiency industries previously protected by the state following the liberalization of foreign trade in the 1990s (Kappel et al. 2003; Hazell et al. 2007; Döber & Kappel (2015). Given the might of global competition, only non-tradable businesses (e.g., construction, retail, services) have been able to survive.¹⁷

Many of the current debates on rural transformation in SSA spring from a new dynamic in the agricultural sector. Higher producer prices and the shortage of natural resources are both incentive and pressure to intensify. This rouses the interest of new actors (including internal and external investors, agro-business), who enter into land deals, eager to secure scarce resources for themselves. Given this constellation, the future of countless African small-scale farmers and pastoralists is at stake. The question is whether they can meet market needs in the future and participate in the enhanced terms of trade mentioned earlier or whether they will be forced to give way to the tough competition of big investors (cf. Collier & Dercon 2009).

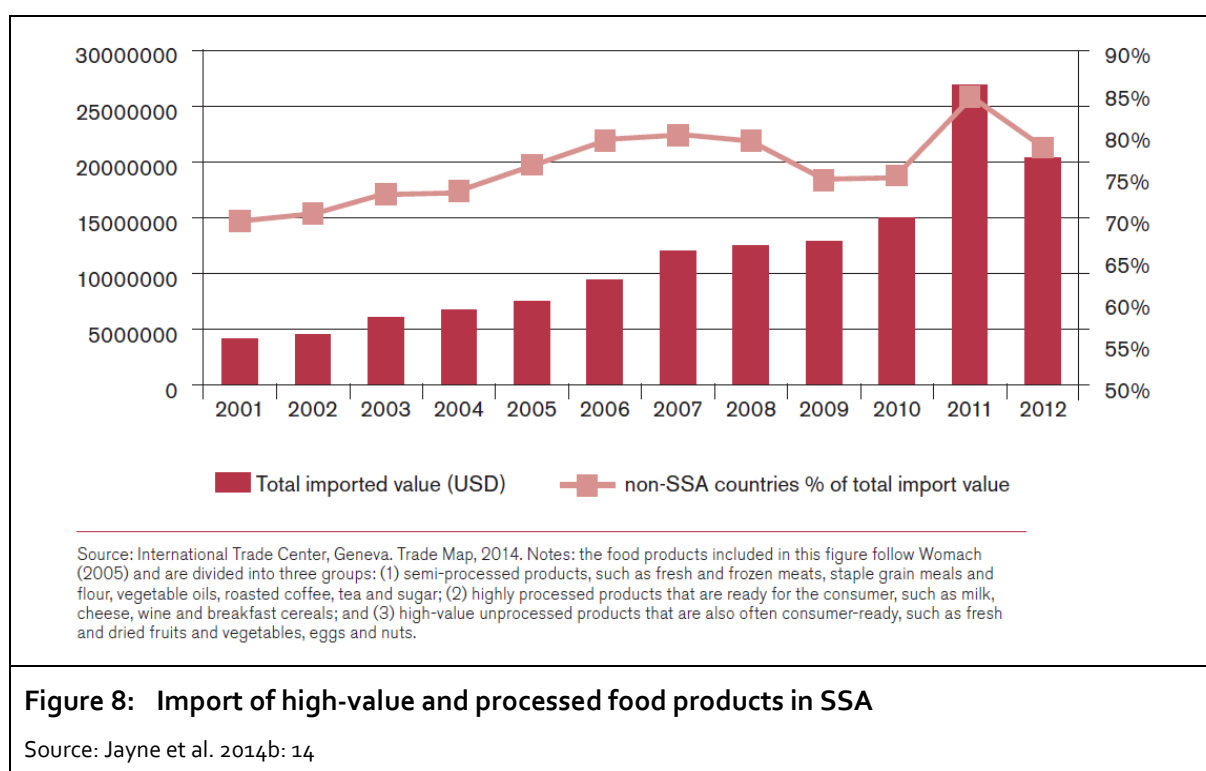
In order to grasp why Africa's agricultural producers and most non-farm production segments have hitherto proved insufficiently competitive at the international level and were/are the victims rather than the perpetrators of global surplus production, the national, regional and local levels should be taken into account.

¹⁶ This decisive assumption on agricultural price trends is currently seen as highly uncertain.

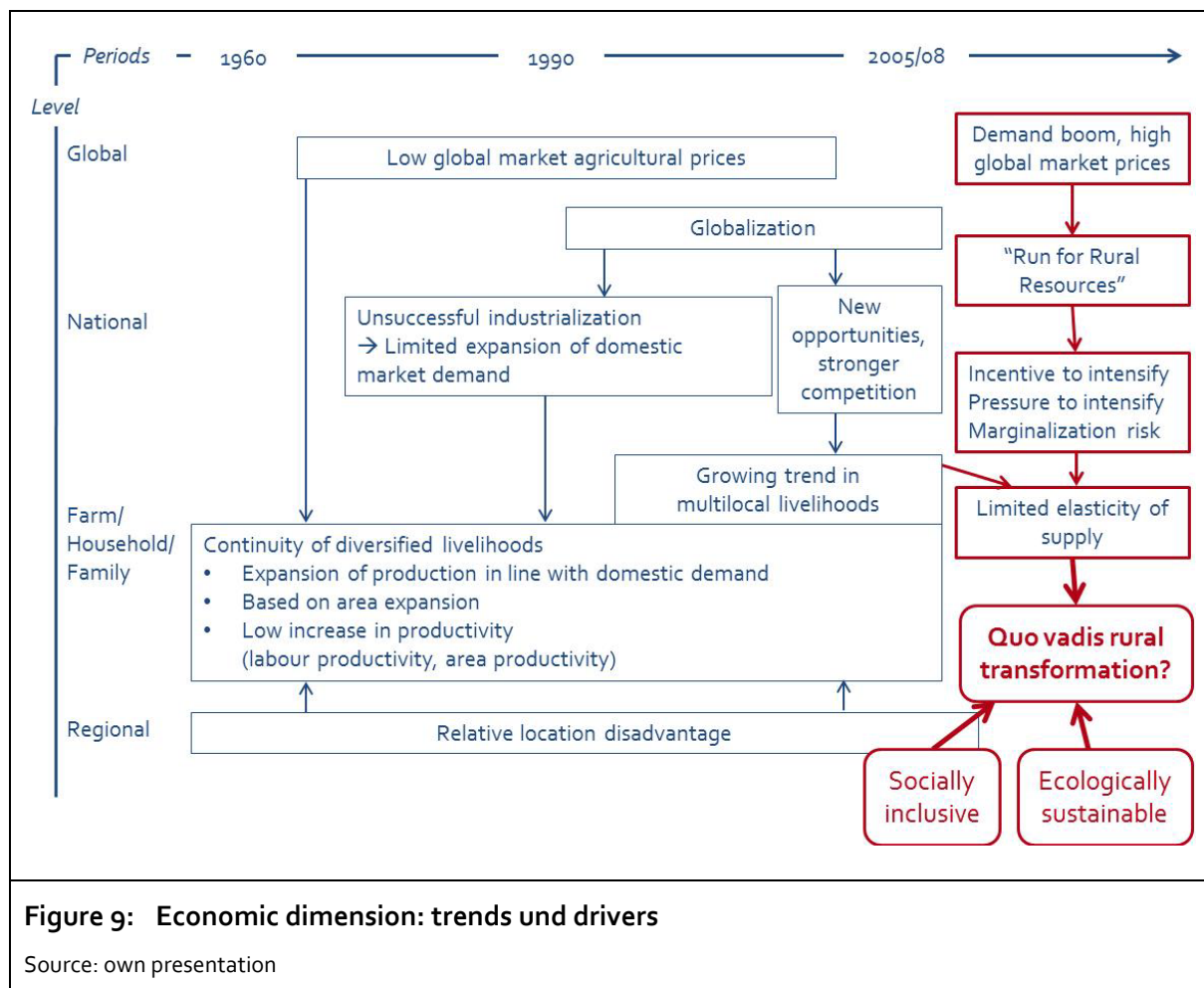
¹⁷ One exception was the food processing industry in South Africa, which in turn dominated market supply in the rest of Sub-Saharan Africa.

Three factors were of particular importance at *national level*:

- **Limited domestic market demand:** Industrialization in the 1960s, oriented towards import substitution and protected by high trade barriers, was low in labour intensity and based for the most part on imported inputs. Its modest growth collapsed almost entirely as a result of indebtedness in the 1980s and the liberalization of trade in the 1990s. Thwarted by the persistence of an adverse investment climate for manufacturing activities in most African countries, it was rarely able to withstand mounting international competitive pressure (Asche 2012, Döver & Kappel 2015). The raw material boom in the past decade was coupled with impressive growth rates in construction, trading and services, and a rise in the number of urban middle-class households with purchasing power, all of which did much to compensate for declining demand in the industrial sector. The growing demand for commodities (fruit, vegetables, meat, processed farm produce from international supermarket chains, and even staples such as rice), however, mostly concentrated on imported goods (Haggeblade et al. 2010). Location-bound sectors such as construction and the service and repairs industry likewise experienced positive demand pressure (cf. Figure 8).
- **High entry barriers:** Increased domination of the home markets for (processed) farm products by international supermarkets and their global sourcing channels, and high entry barriers for local small-scale producers.¹⁸ This applies equally to many areas of small-scale industries.
- **Inadequate trade and agricultural policies and an adverse investment climate** were disincentives for investors from at home and abroad, raised their costs, and damaged their international competitiveness (cf. Chapter 5.3).



¹⁸ "Quality" standards such as similarity in shape, size and purity, but also minimum purchasing quantities.



The factors that play a role at **regional and local level** refer mostly to social and environmental dimensions and need therefore to be spatially differentiated (see Chapter 5.4 and 5.5). Among them are:

- **Diversified multi-local livelihood systems:**¹⁹ given the prevailing existential uncertainty, there is a constant need to maintain diversified livelihood systems, including subsistence production and the cultivation of family support systems. This implies doing without possible advantages to be gained from specialization and scale effects (Losch 2013, cf. Chapter 5.4).
- **Lack of family labour** is one of the consequences of diversified livelihood systems. In the light of unaltered labour-intensive methods of cultivation, this automatically restricts cultivation capacities.
- **High transaction and transport costs:** the comparatively unfavourable geographical location of many rural regions in Sub-Saharan Africa means vast distances, low population densities, and high transport costs. The enormous infrastructural costs involved make it difficult to tap into numerous locations with a natural potential for production. In an economic environment of low agricultural prices and in the case of perishable goods the necessary infrastructural investment would not have been viable (albeit higher prices could make it worthwhile in the future).

¹⁹ Livelihood systems refer to any activity associated with making a living (cf. Chambers 1987). They should not be confused with – often poorly diversified – cropping systems in farming practices.

- **(Fertile) land resources:** although on the whole land resources in SSA still cannot be seen as the decisive bottleneck factor in the way of expansion and intensification of agricultural production (particularly in southern Africa and parts of East Africa), current extensive cultivation methods without the use of mineral or organic fertilizer have already led to severe soil degradation in many locations where fallow periods were reduced. Today, however, prime locations that are highly fertile or suitable for irrigation are in short supply (particularly, for example, in West Africa, peri-urban and coastal regions or the region near Mount Kenya).

c. Impacts

In recent decades, the mostly unattractive market conditions for farm producers and simultaneous absence of secure off-farm livelihoods resulted in the perseverance of diversified, multi-local livelihood systems. Although the latter are useful in adapting to uncertain economic environments, they have an adverse effect on the labour availability and capacities for innovation required to cope with heightened global demand. Thus, they tend to reduce the ability of producers to react flexibly to demand incentives. The consequences include food crises and the overuse and degradation of soils and other natural resources (water, forest, biodiversity). As a result of uneven resourcing, this also means greater social differentiation in rural regions (cf. Freguin-Gresh et al. 2012).

Conclusion: The last fifty years in SSA have witnessed what can only be described as a modest macro-economic and rural transformation. Neither has there been a broad-based increase of any significance in agricultural productivity, nor evidence of a dynamic employment trend in the manufacturing industry. Since the year 2000, however, mild transformation has taken place in the form of a shift in sources of income in favour of export-oriented on-farm activities (mostly contract farming), as well as off-farm and urban activities (mostly within rural families). This process was both socially and spatially selective.

5.2 Institutional dimension: changing institutional framework conditions for rural producers

The institutional dimension refers to regulatory systems that direct stakeholder actions. Institutions are therefore core frameworks for development processes. Institutional change such as land reform or market deregulation has the power to influence the speed and direction of socio-economic transformation. In Sub-Saharan Africa it is closely linked to the terms deregulation, privatization, democratization, decentralization and land rights reform. Particularly significant in the context of RT processes are reforms in the area of rural market deregulation and privatization of rural services, as well as newly regulated access to land and natural resources via land rights reforms, all of which have been accomplished in many African countries since the early 1990s. A short illustration of institutional trends is followed by an outline of the main drivers of change and analysis of the impacts on transformation.

a. Trends

Privatization and deregulation: Since Independence, the countries of SSA have long been defined by an extensive sector of state enterprises and services, by government regulation of rural markets and services, and by foreign trade relations²⁰. Beginning in the 1990s, excessive indebtedness was reason enough for Bretton Woods organizations to push for privatization of state sectors and the deregulation of markets and foreign trade relations in thirty-eight African countries employing a so-called structural adjustment policy. Deregulation of foreign trade and the agricultural markets generally went hand in hand with the dismantling of import duties, price control and government subsidies (Heidhues & Gideon 2011). Apart from state enterprises (i.e., industrial enterprises, banks and state farms, as well as state-owned wholesale and retail businesses and transport companies), privatization also hit the public sector. The state partially withdrew from vital services such as water and electricity supplies, health care and education, and – significant in the rural transformation context – the provision of agro-services, including extension services. Compared to other countries, the process of privatization was slow in SSA and incomplete. This circumstance is due in no small part to powerful vested interests eager to keep strategic enterprises in the public sector. “Pseudo-privatization” was a common occurrence that saw state enterprises transferred to members of the president’s family or to party colleagues. New privatization programmes and initiatives have been launched in Zambia and Ethiopia in recent years.

Land reforms: Land rights reforms are crucial to rural transformation (RT), since they determine the access to and disposal of land resources. Institutional relations in the area of land ownership have been in a state of upheaval for some time. “Customary land tenure systems” have prevailed since colonial times in most SSA countries, that is, communal land ownership administered under customary law by traditional leaders, where individual and communal use rights (“commons”) constitute the predominant form of regulating land access in rural regions. Since the 1990s, government initiatives on land rights have taken the direction of formalizing land titles and individualizing land tenure. The idea behind individual land tenure rights guaranteed by provision of land titles is to create incentives for investment in sustainable land use, to give small-holdings credit insurance and thus improved credit access, and to provide women²¹, who are frequently disadvantaged by traditional land rights, with secure land tenure. Beyond that several advocates of private ownership of land and property hope that land will go to stakeholders whose economic capital allows them to use it to maximum effect (Soto 2003). Introducing tradable, individual land titles, however, harbours the risk that resource-poor small-holders could easily lose their access to land – for instance, in the case of private debts. Alternative land rights reforms (e.g., in Tanzania, Namibia and Cameroun) seek de jure recognition and consequently a strengthening of the old “customary land rights”. This would secure or extend access rights of local small-scale farmers to land and protect traditional use rights,

20 Exchange rates in most countries were fixed by the state and currency operations monitored.

21 Land rights are in many instances instrumental in enhancing the economic engagement of women, who play a substantial role in the rural areas as producers (cf. Chapter 5.4). If formal land rights are pushed through, women stand to lose the indirect access and use rights allocated to them in common law arrangements. At the same time, formal rights would give women new opportunities for secure land ownership, albeit they only profit from these rights in certain socio-cultural and institutional constellations. The World Bank, FAO, and other authors advocate formalization and security of land ownership as a precondition for the enhancement of women’s access and disposal rights to key natural resources in the rural areas (World Bank 2009: 136-140 and 141-146, cf. FAO 2011; cf. Kimani 2012). A more refined position on whether formalization of land ownership and land rights would impact on rural producer opportunities and an overview of the debate can be found in Whitehead and Tsikata (2003) (Lit: Policy Discourses on Women’s Land Rights in Sub-Saharan Africa: The Implications of the Return to the Customary. In: Journal of Agrarian Change 3, (January and April 2003): 67-112).

particularly of the commons, from involuntary appropriation by external investors. In many countries these alternative land reforms and their implementation are diametrically opposed to national elitist interests (Wily 2011). To the present day, modern and traditional land rights coexist, a circumstance that ultimately leads to legal uncertainty, which is in turn exploited by politically strong actors to their own advantage.

Democratization and decentralization

There is no unified pattern to the process of democratization in SSA countries. While political institutions in Ethiopia, nominally an ethnic-federal parliamentary democracy, have been heading de facto in the direction of an authoritarian regime since the turn of the century, in Zambia a presidential democracy with a multi-party system, which has been in place since the 1990s, has stabilized (governments have indeed been led by alternating parties). In cases where it was genuine, democratizing invariably went hand in hand with greater civic freedom, a revival of political debates and more room for civil society to manoeuvre, but it rarely led to the desired enhancement of governance (Bierschenk & Olivier de Sardan 2014). Trends in democracy are generally slower in rural regions and somewhat diluted, and deep-rooted patriarchal and clientelist structures are more persistent.

The pace of decentralization of government authorities in SSA is relatively slow. It began in the 1990s and is guided by the central government in a top-down manner. Implementation is mostly reluctant and frequently the result of pressure from donor countries. Most African countries have elected local governments. At the same time, lack of fiscal and sectoral decentralization and thus of the necessary financial and human resources frustrates any attempt by local governments to carry out their own programmes independent of national ministries or donors. Ethiopia, Benin and Zambia in comparison to other countries in SSA rank in the middle to upper section in terms of implementing decentralization policies (World Bank, Ndegwa 2002).

b. Drivers

Although the decisive trigger for the processes of institutional change outlined earlier came from the global level, the reform efforts concerned were partly taken up by social groups at national and local level, and actively pursued.

The driving force **at global level** was primarily international organizations. Deregulation and privatization were speeded up by structural adjustment programmes under the IMF and World Bank and were supported by almost all donor nations. This also holds true for land rights reforms and decentralization policies. Progress in the area of democratization today and the observance of human rights are prerequisites for donor engagement. In addition, international organizations in Africa, such as the *Southern African Development Community* (SADC) and the African Union, have a standardizing effect on the institutional arrangements of their member states.

Civil society actors in several countries have assumed a more prominent role at **national and occasionally at regional and local level**, particularly in terms of implementing democracy, amendments to or compliance with constitutions, and human and civil rights (cf. Eberlei 2014).

The following diagram gives an overview of the key features of institutional change.

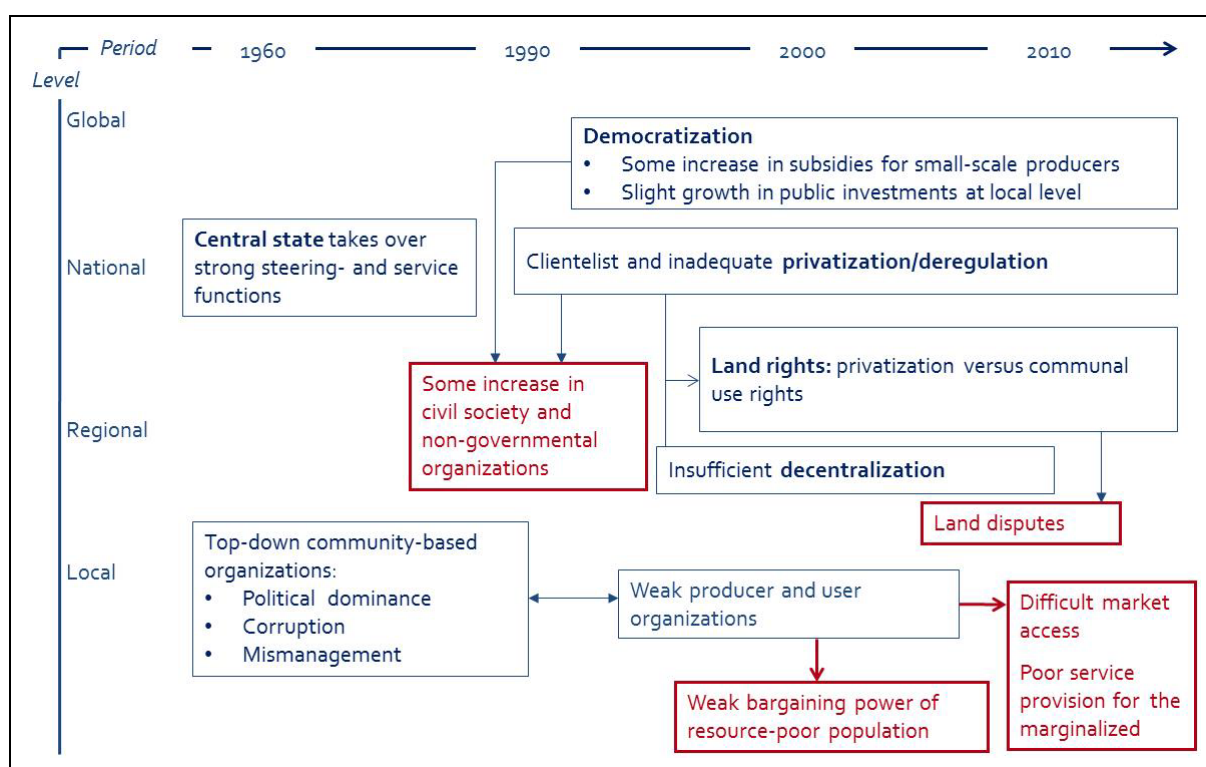


Figure 10: Institutional dimension: trends, drivers, impacts

Note: Red fields refer to factors currently of particular relevance to RT

Source: own presentation

c. Impacts

Chapter 5.1 states that in terms of productivity and the reliance of countless households on agriculture at best a cautious version of RT has taken place since Independence in SSA. This raises the question of why the institutional change identified in this section and the attendant broadening of the democratic and market economy scope for action has not led to greater vibrancy in inherited post-colonial economic and social structures. Of particular interest here is the impact of deregulation and privatization on rural economic trends, the influence of democracy and decentralization on rural societies and the effect of land rights reforms on the access to and use of resources.

Privatization and deregulation: there is little scientific evidence on the precise impact of privatization policies in terms of macro-economic efficiency in general and structural change in the rural areas in particular. Neither has there been systematic analysis of their impact on welfare and political stability (many instances of privatization led to public protest) or on long-term trends in local capacities (Barthélemy 2004: 9-10). There is visible evidence in everyday life that consumers are now faced with restricted access to or price increases in services that were once public but are now privatized. Individual studies show that the poorer population, notably in rural regions, is still excluded from vital services today as a result of privatization and are forced to put up with substantial disadvantages and high costs (e.g., for enhanced seeds, soil additives such as calcium, agricultural equipment) (Arrey Mbongaya 2008, Kwapong 2012, Moumouni et al. 2012). On the other hand, deregulation of agricultural commodity markets more often than not sparked a revival of local market life. New market opportunities at central locations contrasted with the further deterioration of market

linkage at peripheral locations of little interest to agro-business (Rauch 2011). The complete withdrawal of the state from the provision in rural regions of agro-services without replacement, including competent extension services, had fatal consequences that are still felt today. The cancellation, for example, of veterinary services was a harsh constraint on the introduction of animal husbandry. The removal of government advisers left a dearth of know-how, which in many places still shows evidence of obstructing the small-holder economy. Lack of access to seeds and other inputs, for example, prevented the cultivation of crop varieties, productivity enhancement and an adequate soil response to fertilizer (lack of calcium leading to soil acidification is usually the reason).

One exception on the positive side is the privatization of the telecommunication sector, which led to a marked improvement in the access to information and communication, especially in the rural areas. Here heightened competition and the sector's strategic orientation meant better quality services, greater coverage and lower prices. An OECD report identifies poor regulation as the reason for unsatisfactory privatization results (e.g., price regulation, property rights, rules for transition from public to private property) (Barthélemy 2004).

Land reforms: privatizing land property and formalizing land rights has led to a weakening of the role of customary institutions in those rural areas where land resources are scarce and usage pressure is high. Due to their informal nature, traditional local systems of law and regulation are not sufficiently acknowledged by governments in Sub-Saharan Africa and by donor organizations (Easterly 2008; Beckmann et al. 2015). The competition between formal and customary legal systems aggravates conflicts surrounding ownership and utilization rights of diminishing natural resources in the rural areas. The predominance of formal law can be of disadvantage to those who have hitherto taken recourse to secondary use rights of property within the family or use rights to resources belonging to the community: this last refers above all to women and pastoralists (Toulmin 2006).

With regard to the impact of formalizing and individualizing landed property, strong social and spatial distinctions should be assumed, depending on whether it concerns production systems geared to the market or to the subsistence economy. For resource-rich actors with competitive production, formalized land titles and a reliable legal framework are prerequisites for land investment. In contrast, the significance of formalized property, access and disposal rights for resource-poor producers depends on land scarcity, on the one hand, and on whether local customary law remains valid and uncontested, and provides adequate protection, on the other (Tröger 2004). In this case, formalization is unnecessary and could lead to disadvantages for resource-poor small-scale producers and ultimately to conflict (Toulmin 2006).

Democratization and decentralization: the impact on rural transformation of democratization and decentralization in SSA and its hitherto sluggish and incomplete implementation is best described as minimal. Decentralization means that the clientelism mentioned earlier is simply transferred from the central to the local level. It can be said that under decentralizing and multi-party system (party rivalry) conditions, clientelism in SSA has undergone a process of "democratization" in as much as more public funds are now being invested in rural areas and the redistributive effects have taken place in favour of the rural poor (Walle 2009).²² As a result of the democratizing process, civil society groups in several SSA countries have gained influence and articulate the demands of certain pressure groups. At national level, particularly in large urban centres, a public space has emerged in a

22 Empirical research in Zambia shows that poverty reduction via decentralization in the poorer wards (local self-governing units) and communities has had some effect. This is frequently the result of opportunities to participate in the decentralized selection process of the social security fund (De Janvry et al. 2009: 17; Chase & Sherburne-Benz 2001).

number of countries, e.g., an independent press, elections, trade unions and civil society organizations (Eberlei 2014). The countries under review, Ethiopia and Zambia, show opposing trends in this context. While in Ethiopia repression is mounting against civil society actors should they be critical of the government (Tenshome 2014), active civil society in Zambia, at least at national level, has stabilized (Meyns 2014). The impact of democratic relations in the rural areas is not yet visible. Many of the organizations under the label of “civil society” are NGOs. Their members are mostly urban middle-class academics who offer public services and act in an advisory capacity. Their degree of professionalism, their capacities, their values and commitment, and their legitimacy and degree of representativeness to speak for the poorer population varies considerably, particularly in rural areas (as the SLE study by Paulus et al. 2003 demonstrates). Trade unions, farmer associations and other interest groups in comparison are active in the civil society arena. The interest representation of resource-poor producers, farm labourers and the landless is, however, found wanting in this segment.

As grass-roots civil society groups, **community-based organizations (CBO)** are vital to transformation in the rural areas and have been in the limelight of donor organizations for quite some time now (World Bank 2008). In the 1960s and 1970s, local organizations along cooperative lines were set up throughout several SSA countries as government policy with the intention of practising the notion of self-reliance. The Ujamaa village organizations in Tanzania are a prime example of this government-controlled programme introduced “from above”. Many of them fell into disrepute as a result of mismanagement and subordination to political agendas, and ceased to exist once state subsidies or funds from developing agencies (ODA) were withdrawn. These failed attempts to organize the village population led to disenchantment with local organizations in many rural areas. On the other hand, functioning small-scale producer organizations are key when it comes to accessing sales and input markets, public and private services, and to achieving economies of scale and streamlined bargaining power. This is especially true in the case of resource-poor producers and their steady, equitable access to value chains (Rauch 2012) and makes producer organizations an essential ingredient of socially inclusive rural transformation.

Conclusion:

- Although market deregulation and the privatization of services and enterprises heightened local market activity, it also gave rise to more aggressive international competition and the destabilization of prices and market conditions. In many areas it left a gap in important financial, social and particularly rural services. The new market openings afforded by international and national value chains were simply too narrow to forge more than a few pockets of deeper market integration.
- Implementation of land reforms leaves much to be desired. Formalizing land ownership has brought external actors onto the scene seeking to augment and secure their property. The dualism of formal and customary rights brought forth by land reforms has exacerbated conflicts of interest in rural areas with scarce land resources.
- Decentralization has rarely gone beyond the stage of establishing democratically elected community councils. Local administrative capacities and budgets are inadequate for local control of rural development. With the introduction of multi-party systems and formal democratization, new opportunities for civil society activity are evolving or have been achieved. The focus of the actors concerned and their impact, however, are confined to the national level. Democratization and decentralization have up to now brought little in the way of new openings for local farming grass-roots organizations to push for enhanced and equitable market linkages with the aid of civil society engagement.

5.3 Political dimension: agricultural and trade policies

While changes in institutional arrangements for rural development processes were at the centre of the “Institutional dimension”, this section concentrates on the political dimension, that is, the rural development policies of African governments. Based on the assumption that RT is a multi-dimensional process but highly sensitive to changes in the agricultural sector, the focus lies on agricultural policies and the trade policies that impact on agricultural production. A brief summary of key policy trends is followed by an outline of the drivers that determine these trends and an analysis of the impact on rural region dynamics.

a. Trends

How policies are made and their general direction is primarily shaped by national governments and therefore varied. This notwithstanding, the agricultural and trade policies of African governments since decolonization show evidence of significant common trends regarding their influence on (hitherto limited) transformation. At the same time, there are obvious distinctions between different stages:

1960-1990: Period of state regulation and government agricultural services: agricultural producer and consumer prices and the exchange rates that affected them were regulated by the state. Price and exchange rate policies were to a large extent aligned to the interests of urban consumers and thus to the disadvantage of rural producers (“urban bias”). Agricultural services (research, extension, inputs, credit, marketing) were likewise seen as government tasks. Inputs (mineral fertilizer) were

frequently subsidized and beneficiaries mostly a small number of more prosperous farmers organized in cooperatives.²³ Agricultural research and extension services – in keeping with international trends – were geared to the “Green Revolution” model, which focused on the promotion of high-yield crops and mineral fertilizer on credit. Most of the African food crops, however, such as millet, sorghum and cassava, were not included in crop-breeding programmes. Unlike rice or maize, major breeding progress in these crops did not materialize. Hence agriculture along the lines of the Green Revolution model was never going to happen for small farmers in Africa. As a result, rice and maize cultivation expanded in African countries, while typical African crop varieties were pushed back. In addition, mechanizing and irrigation programmes were installed in many countries and regions. The latter ultimately failed as a result of poor financial and environmental sustainability, and lack of know-how, access to spare parts, infrastructure and marketing (e.g., Zambia, cf. Neubert et al. 2011). With regard to agricultural policies, there were strong distinctions between purely agricultural countries (Ethiopia) and those with mineral raw material reserves (Nigeria or Zambia): in agricultural countries where state revenue was primarily based on levying the agricultural value added, agricultural production received more support than in countries rich in minerals, where farmers were neglected to an alarming degree (Neubert et al. 2011).

The *period between 1990 and 2005* was mostly shaped by withdrawal of the state from promoting agriculture. Structural adjustment policies saw the deregulation of agricultural markets and foreign trade, and the privatization of agro-business (cf. Chapter 5.2) and thus in reality their elimination in most regions. Consequently the agricultural budget was cut (Heidhues, Obare 2011) and amounted to well under 5% of the state budget.

Since 2005, an increasing number of African governments has become more active again in providing agricultural services, at least in the area of staple food production. Countries like Zambia or Kenya offer fixed purchase prices for major food crops in order to minimize revenue risks for farmers or provide – as in the first decades after Independence – mineral fertilizer at subsidized prices (e.g., Zambia, Malawi, Ghana). Most of the increases in agricultural budgets – which followed a CAADP²⁴ decision²⁵ – have been used for these problematic fertilizer subsidies (see below under **Impacts**)²⁶.

b. Drivers

Although agricultural and trade policies are subject to the authority of national governments, the trends outlined in previous sections were affected by *global political factors*. The state-centred period following Independence was marked by the prevailing global paradigm of a developmental state. The paradigm shift in the late 1980s and early 1990s was shaped by the neoliberal spirit of the time and the conditionality of structural adjustment policies as a reflection of the Washington Consensus.

23 Membership fees and corruption in the cooperatives led to the de facto exclusion of countless poor farmers and reduced cooperatives to fertilizer sales points and credit access sites (Neubert et al. 2011).

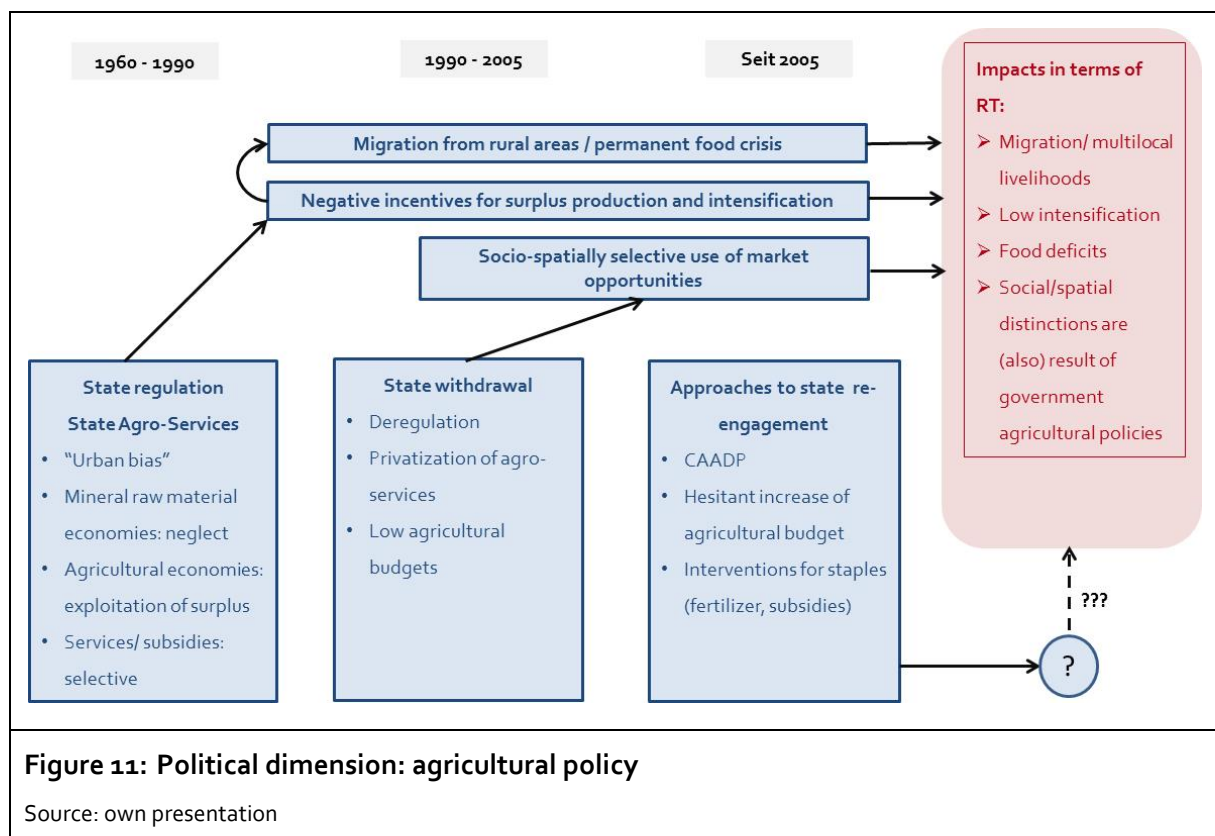
24 CAADP Comprehensive Africa Agricultural Development Programme

25 While CAADP calls for stable agricultural budgets of 10%, the share tends to fluctuate between 3 and 6%.

26 Similar to the 1960s and 1970s, only certain crops were encouraged, mostly staples (maize in southern Africa). This led to the one-sided cultivation of maize with the familiar negative economic and environmental risks and nutritional consequences (Neubert et al. 2011).

At the same time, the **national level** had considerable room for manoeuvre – at least up to the debt crisis of the 1980s. That this leeway was not exploited to enhance competitiveness or increase incentives for the majority of African small-holders is due to the predominant rent-seeking interests of political and bureaucratic elites, and the negligible political influence of the masses in the rural areas. (Rauch 2011).

Clientelist networks and relations at **regional / local level** between local rural elites – partly organized in cooperatives – and the agricultural administration played a substantial role in the distribution of funding and subsidies to an agricultural upper class. The widespread tendency of African agricultural policies to neglect the majority of small-scale farmers and exacerbate rather than cushion the disadvantages arising from the world market can therefore only be explained by the linkage of external and internal factors.



c. Impacts

On the one hand, national agricultural policy did much to reinforce negative incentive systems to discourage agricultural surplus production and the necessary investments or innovations to intensify farming. In this sense it contributed not only to lessening the attractiveness of agriculture and to rural-urban migration, but also to a deficient food supply situation. Moreover, selective state sponsoring and – in the phase of liberalization – privatization of agro-services underpinned the social and spatial differentiation of the rural population. Thus crucial farm inputs continued to be unaffordable for most farmers and are often locally unavailable. Current efforts by a number of countries (including Zambia) to promote the production of basic food via stable prices and fertilizer subsidies are

seen as controversial due to their numerous adverse effects. Apart from negative environmental impacts and ineffectiveness of the distribution system, mono-cropping increases the production risk and extends the period between harvests, which in small-holder households can mean starvation (Neubert et al. 2011).

Conclusion: The low level of competitiveness of small-scale farmers in SSA and their poor ability to ensure food self-sufficiency, the growing difference in small-holder potential, and the need to look for additional urban or foreign sources of income are not inherent deficits of the small-holder economy but to a vast degree the result of unfair market access conditions and inappropriate agricultural policies.

5.4 Socio-cultural and demographic dimension: migration, population growth and changing values

The structural changes observed in the economic and institutional dimensions appear in the socio-cultural and demographic context in the form of reciprocal drivers: migration, urbanization, population growth and value change. The socio-cultural changes involved in transformation raise the question of the significance of progress in social development (notably education and health), which in SSA is comparatively modest (cf. Herrmann et al. 2015). In our opinion, the discussion on transformation does not do justice to capacities and capabilities gained from education and health, and the opportunities they generate. Lack of data and scientific analysis does not allow for in-depth analysis of the role of social sectors²⁷.

a. Trends

Social and demographic transformation in the rural areas of SSA can be focused on three major topics: migration and multi-locality; population growth and fertility behaviour; changes in socio-cultural values.

Migration and multi-local²⁸ livelihood systems: Migration from and in the rural regions of SSA is not a new phenomenon related to structural change. Since colonial times, migration has always been a promising option for countless rural households with insufficient and insecure livelihoods when it comes to generating new sources of income and diversifying them to minimize existential risks (De Haan 2000). It is frequently perceived as long-term emigration from the rural areas to large cities or other countries. In reality, however, rural-urban migration is merely one of many forms of this phenomenon (cf. Black et al. 2006, IOM 2013, Potts 2014 and Schutten 2012). Since migration is crucial to the ability of resource-poor rural livelihood systems to survive (cf. Bryceson 2002, Godoy et al.

²⁷ Only Jayne et al. 2014 mentioned education as a key driver of structural change but did not discuss its empirical significance.

²⁸ While Schmidt-Kallert speaks of “multilocal households” and “livelihoods” (Schmidt-Kallert 2009, 2012), Steinbrink and Lohnert (2005) use the phrase “translocal livelihood strategies” and “translocal communities” (instead of “households”). In this way they underline the social and spatial dynamic of survival strategies.

2012, Grawert 1989 and Steinbrink 2009) and to the progress of rural economies (cf. Berdegué et al. 2014; IOM 2013 and Schutten 2012), the motives, directions and functions of migration will be recounted briefly. That said, quantifying the various forms of migration differentially in different places with insufficient data is nigh to impossible.²⁹ This absence of aggregated data, however, is compensated by a vast collection of studies on the significance of migration in SSA. The studies in question repeatedly point out that rural households and family farms or livelihood systems in the rural regions of SSA rely heavily on temporary migration, also referred to as circular migration³⁰ (cf. Dorlöchter-Sulser 2014 for Niger; cf. Potts 2014 for Zambia and Zimbabwe; cf. Beauchemin, Bocquier 2004 for West Africa; Neubert 2010 for Benin and Grawert 1989 for Sudan). Regional and international comparative case studies are also available and concentrate on exploring the root causes of migration and its impact on the prosperity or poverty of rural households (cf. Schutten 2012; Tacoli, Mabala 2010).

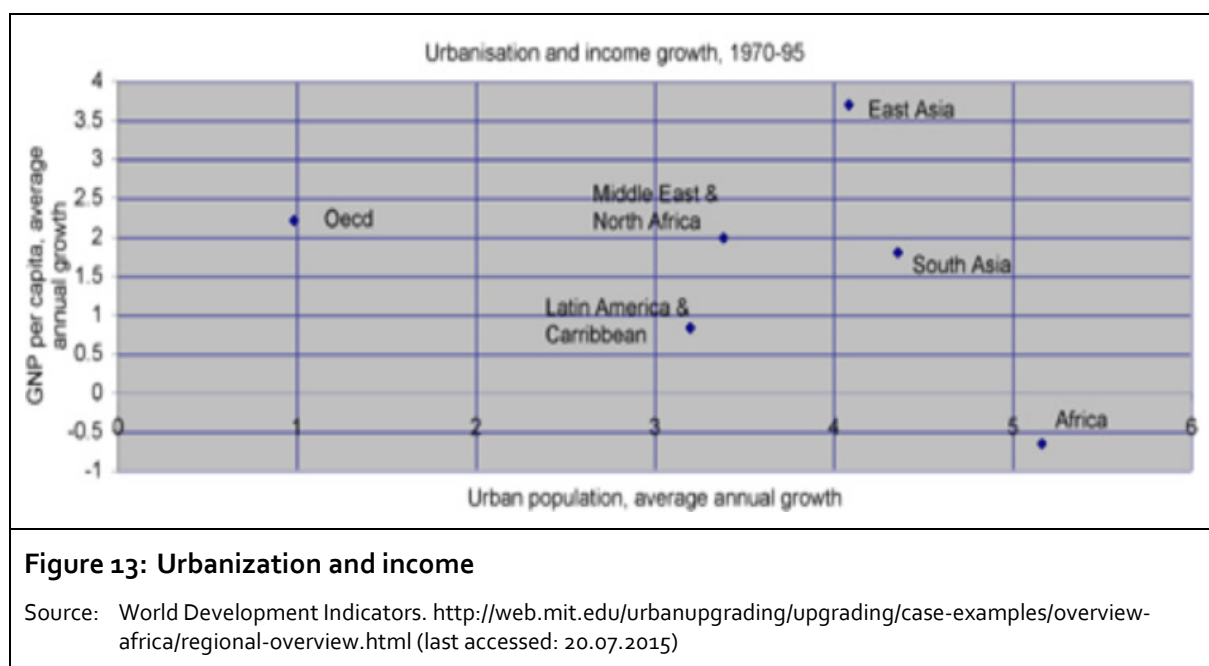
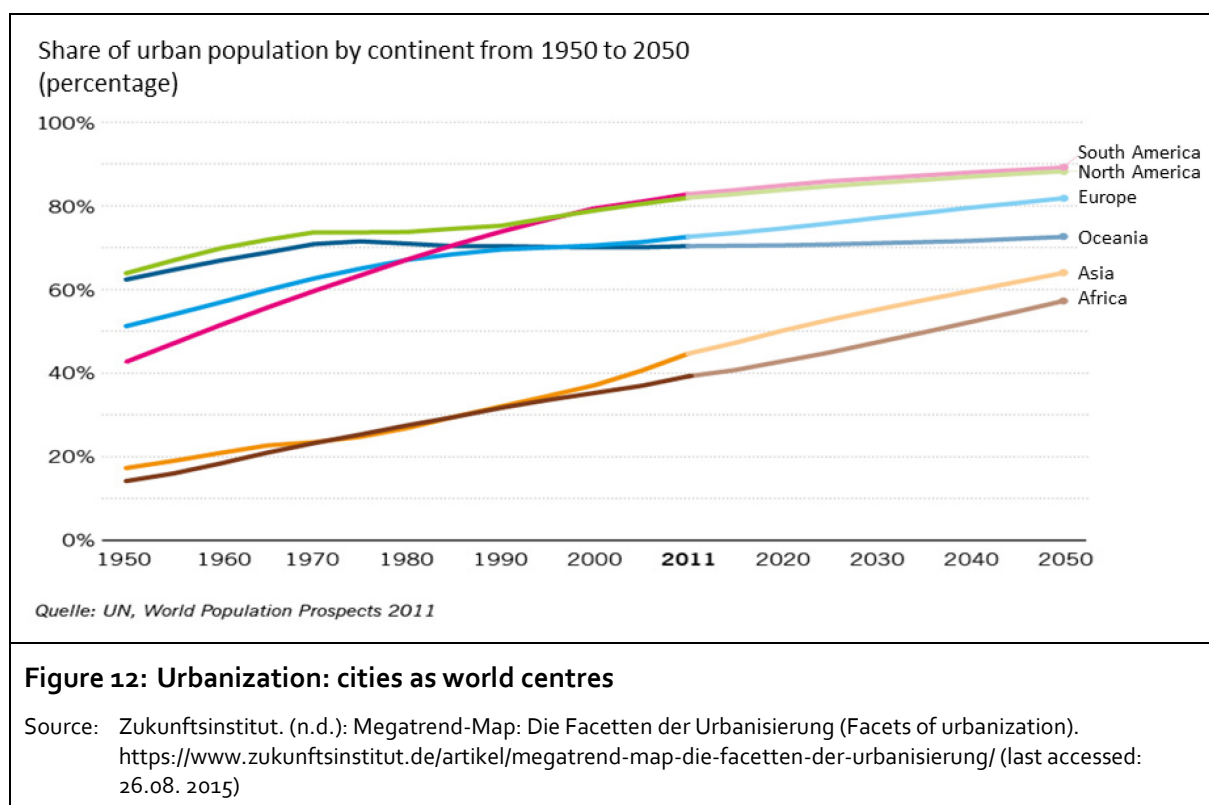
Migration cannot be explained solely by individual preferences and livelihood strategies. In a comparative long-term study of demographic data on migration and its historical development in Zimbabwe and Zambia, Potts illustrates that the aim and intensity of migration in both countries is closely tied to global economic frameworks and national policies (cf. Potts 2014). Interestingly, both countries showed evidence at certain periods of migration waves from urban centres to the rural areas and of rural to rural migration (cf. Schutten 2012). On the whole it can be assumed that different income levels or terms of trade between farm and non-farm sectors impact heavily on urban-rural migratory behaviour. Low food prices produce an increase in the trend towards the cities, while higher food prices leads to a reversal of this trend. Globally, however, the trend towards urbanization leads the way. Although the degree of urbanization in the countries of SSA today is still quite low, African cities now have the highest growth rates³¹. Figure 12 shows the historical development of urbanization in a cross-continent comparison and the corresponding predictions for the future. It also indicates that the African continent is clearly moving rapidly from a low level of urbanization towards the world average.

Unlike in other places, urbanization in many SSA countries does not automatically increase the gross national product and level of employment. Figure 13 illustrates that compared with OECD and other country groups, the African urbanization process between 1970 and 1995 had the highest growth rates and the lowest income increases.

29 Looking at migrant figures from a global perspective, internal migration is far higher than international migration (IOM 2013: 71). The International Organization for Migration strongly emphasizes intraregional migration given its potential contribution to economic progress (cf. IOM 2013: 72-73). For the general data gap in migration research, cf. IOM 2013: 35-36 and 61-64. A group of researchers from the Population Council complained about "the poor migration data situation" to *The Guardian* (cf. Mark Montgomery, Sarah Engebretsen, Miriam Temin "We urgently need more data on international migration" In: *The Guardian*, 18.12.2013 URL: <http://www.theguardian.com/global-development-professionals-network/2013/dec/18/internal-migration-international-migrants-day>. Last accessed: 20.07.2015.) For the data deficit on internal migration in SSA, cf. Potts 2014; for data availability in Niger, cf. Dorlöchter-Sulser, 2014.

30 The Southern African Migration Project study (Black et al. 2006) shows that 50 to 80% of rural households at all levels of prosperity have at least one migrant member. A study on migration and rural livelihoods in Niger indicates that as much as 75% of households surveyed there relied on circular migration (Dorlöchter-Sulser 2014: 303).

31 Official figures on urbanization rates for SSA are now seen as highly controversial. Recent analyses led the UN to make a sharp downward adjustment to its forecasts on urbanization trends (cf. Jayne et al. 2014).



Numerous studies on migration show that vulnerable and resource-poor rural households, as mentioned earlier, rely on migration and income transfers from the cities. In the cities of SSA, on the other hand, these households often fall into an “urban trap” and never rise above poverty level, living as they do under precarious conditions and working in insecure jobs. In the last twenty years they have furthermore faced a number of sharp increases in the price for food and accommodation.³²

Migration movement to the cities in SSA is by no means a linear, irreversible trend. Countless migrants return to the countryside after varying periods of time in the cities (cf. Ratha 2011 and Schutten 2012). Migration itself is not always associated with big cities. The destination is often a move from the countryside to small or mid-sized towns initially (cf. Potts 2012). Once people have gained experience and become proficient in networking they tend to migrate to destinations farther afield and to larger cities (cf. Dorlöchter-Sulser 2014 and Doevenspeck 2005 and 2011).

Doevenspeck’s research points to environmental degradation as a current motive for migration from certain rural areas. His research in Benin documents that the trend in country-to-country migration reflects a situation where more and more actors are forced to migrate as a result of soil degradation (cf. Chapter 5.5). The sharp increase in the cost of living in the urban centres has, however, led to the reverse trend of urban-rural migration in a number of countries (cf. Potts 2010 and Schutten 2012). Other motives for young men to migrate are the enhanced education prospects in urban areas. Secondary schools for the rural population tend to be located a great distance away.³³ Hence urbanization processes in SSA are far from straightforward. Remigration and the multi-locality of households results in closer interrelations of rural and urban livelihoods and their mutual dependency.³⁴ The decision to migrate (time, destination, length of stay) depends on livelihood needs and resources (cf. Schutten 2012), as well as on income differences and (anticipated) employment opportunities at the destination. In the last two decades the volatility of these factors in the urban and rural areas of many SSA countries has translated to flexibility in migratory habits. In SSA we can consequently speak of a complementary relationship between urban and rural sources of income rather than a linear trend towards abandonment of the countryside.

32 Migration is an option for rural households that are particularly vulnerable and very poor as well as for those that are moderately poor or better off. While the latter are in a position to systematically increase their capital stock through migration, moderately poor households have to settle for simply consolidating their livelihoods with income transfers from migrant family members. The vast number of particularly vulnerable and very poor households, on the other hand, relies completely on income transfers from the urban centres to maintain subsistence. In general, the capital stock of these households never improves. On the contrary, some fall into even deeper poverty despite migration (cf. Schutten 2012, Steinbrink 2009).

33 Another motive for migration from the rural areas is the search for employment by the young, who have little or no opportunity to make a living from the land in competition with older siblings (Alber et al. 2012; Gibson, Gurmu 2012). It should be kept in mind that yet another motive for migration is political instability, violence and persecution. This is the case in the rural and urban areas of several SSA countries. In the context of rural transformation processes, it applies to certain regions only.

34 Meanwhile not only poor urban households try to buy food at more reasonable prices from family relatives in the countryside. More prosperous families also look for land within reach of the urban centres in order to produce their own food.

Demographic trend: SSA countries are still in the early stages of a demographic transition that began two hundred years ago in the old industrial countries.³⁵ Contrary to the global trend, a heavy increase in the population of Sub-Saharan Africa is expected up to 2050 (cf. Table 8 in the Annex). The reason for this persistent population growth is twofold: the significant drop in death rates as a result of health care progress, on the one hand, and only a slight decline in fertility rates, on the other. Thus many countries and regions of SSA are at stage two of the demographic transition model and experiencing an ongoing population increase (cf. Herrmann et al. 2015 and UN 2012).

Ethiopia, Benin and Zambia, the countries under review in the SLE case study, are likewise in stage two of the demographic transition model. The fertility rate per woman in Ethiopia, Benin and Zambia still averages between five and six children.³⁶ The absolute number of rural inhabitants in SSA in general and in these three countries in particular is expected to increase up to 2050 (see Table 8 in the Annex; cf. Losch 2013). The high number of children born has already led to a dramatic rise in the number of young people of working age, and will continue to do so in the near future. Approximately fifteen million young people throng the labour markets each year. Less than half have a hope of finding any employment, while only two million find formal jobs (Losch 2012, Jayne et al. 2014). The age structure of the total population will continue to have a very high share of dependents if fertility rates fail to decline (cf. Herrmann et al. 2015). According to demographic forecasts neither will African countries escape rapid growth in the share of elderly and dependent people as life expectancy increases (Golaz 2012). These forecasts match the current findings of single-case studies and genealogical research in SSA. When family responsibility structures are overburdened or collapse, those left to fend for themselves are children, the elderly, and other people in need – not least in the rural areas (Alber et al. 2012).³⁷

Changing values between the collective subsistence logics of families and kin and individualist tendencies: in the context of migration, family or kin-structured network ties have proved stable and adaptable. These family support systems assume wide-ranging responsibility, such as looking after children who are sent to the urban centres for a better education. At the same time, these systems use family relatives, including children or foster children, as seasonal labour (Alber et al. 2012; Aleber 2014).

35 The concept of demographic transition follows a model of demographic progress. Starting from an originally stable position, demographic transition begins as soon as life expectancy increases or death rates decline as a consequence of improved nutrition and health care. As long as fertility rates remain stable, however, population increases rapidly (Stage 2). Once fertility rates decrease in stage three, as in the context of a qualitative improvement in education prospects, family planning and access to contraceptives, population growth grounds to a halt. Then women have less children and the share in the population of economically productive age groups increases for some time in proportion to the share of very young and very old people. Stage three can lead to a “demographic dividend”, when the vast economically productive generation is well educated and corresponding employment and income opportunities are in place. Demographers explain the disproportionate and surprisingly rapid growth of Asian tiger states with, among other things, the use of demographic dividends. (cf. Herrmann 2015).

36 Ethiopia, Benin and Zambia belong to the so-called Cluster D in the study carried out by the Berlin Institute for Population and Development. “27 of the 42 countries south of the Sahara belong to Cluster D, which has the highest fertility rate and the greatest development difficulties.” (Sippel et al. 2011: 38).

37 The now common grandparents-grandchildren and child families is a phenomenon that emerged in the last two decades as a legacy of the AIDS epidemic.

Closely linked to migration is the gradual shift in family and kinship ties in the current rural settings of SSA. In African societies – particularly in the rural areas – these ties continue to be indispensable support systems. It should be kept in mind here that families or households in SSA cannot be equated with nuclear families in industrial societies, since their boundaries are far more permeable (Alber et al. 2012). The practice of giving away or taking in foster children, for example, is frequent and socially accepted. There is no uniform pattern to changes in the function and socio-cultural significance of family and kin in the rural areas of SSA. On the one hand, family structures display remarkable stability and adaptability while, on the other hand, these kinship ties originally forged by solidarity have in some places eroded, not least in the context of migration. This tendency to disintegrate is in no way accompanied by the corresponding establishment of state social security systems (Sippel et al. 2011) and neither do those affected have access to private social insurance systems. The people concerned, who are dependent on others for subsistence and care, are left more and more without means. Individuals are thus torn between family demands and the requirements of the markets and urban individualizing trends.

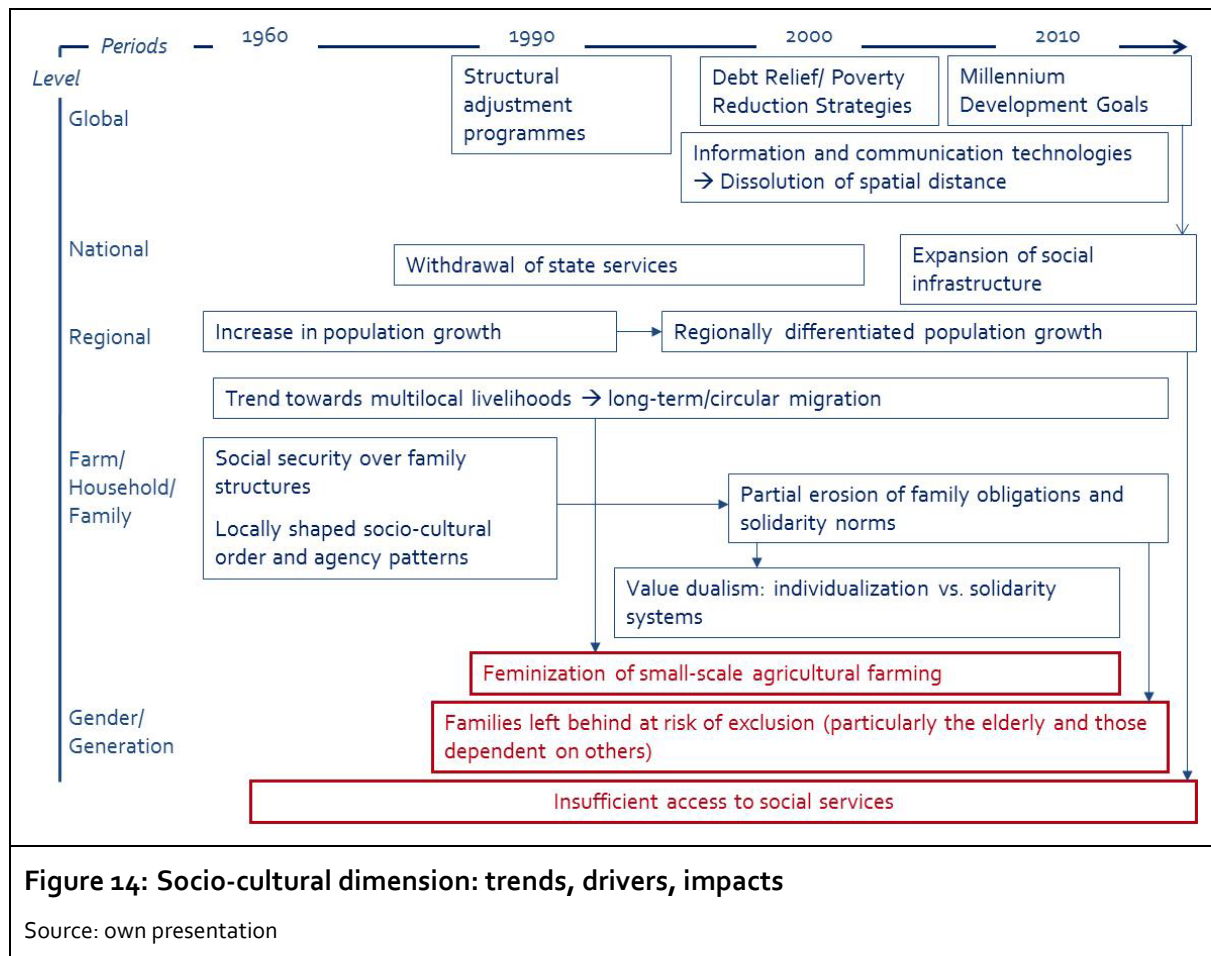
b. Drivers

Living in two worlds: The phenomena described above referring to socio-cultural change – circular and permanent migration to cities, perpetually high fertility rates and population growth in rural regions, and the value dualism of traditional and market economies and action patterns – should ultimately be understood as the result of a persistent economic constellation. Here neither agriculture and the rural areas nor utterly precarious economic prospects in the urban centres have the potential to provide families with a secure means of livelihood (cf. Chapter 5.1).

Migration, particularly of the younger generation, and processes of urbanization are therefore pivotal to guaranteeing the social and economic survival of the family. Thus many migrants maintain close ties with their home regions. In a reciprocal system migrants secure the livelihoods of their families and are in turn supported by them in times of need. Precarious living standards are a key reason why – apart from patriarchal structures and lack of knowledge or access to contraceptives – fertility rates in rural regions rarely decline. Given the absence of formal old age security, a high number of children is perceived as a form of security in old age. The tight-rope act between the demands of farming family support systems and the competitive individualist demands of the market makes moving in both worlds, with their often contradictory rules and norms, an economic necessity.

Figure 14 summarizes the social and demographic trends and impacts of rural transformation in Sub-Saharan Africa.

Transport infrastructure and information and communication technology: The persistent trend in multi-locality benefits from the expansion of transport infrastructure and easy access to communication technology. It accelerated the spread of urban lifestyles in the rural areas. Consumerism has become an important status symbol (mobile phones, fashionable clothes, access to electricity via solar technology) even in the economically modest settings of rural regions. Urban life is gradually gaining currency. At the same time, the decision to migrate cannot be reduced to a question of lifestyle. The absence of economic prospects on the land is still the main push factor.



c. Impacts

Findings on the overall impact of migration on prosperity or poverty in the rural areas vary.³⁸ Diversified multi-local livelihood systems based on migration and a combination of subsistence production, market production and wage labour are directed at minimizing risk and reducing family vulnerability.³⁹ Tacoli sees the impacts positively: "Overall, synergy between agricultural production and urban-based enterprises is often key to the development of more vibrant local economies and, on a wider level, to less unequal and more 'pro-poor' regional economic growth." (Tacoli 2004: 2). Some of the positive impacts are addressed in the following:

³⁸ General assessments on the impact of migration differ considerably. Several authors emphasize the stimulating effect of migration on local economies (Tacoli 2004) and its harmonizing effect on income inequality (cf. Bryceson 2002), while others point out the narrow confines facing migrants from poor livelihoods and with low levels of education (Schutten 2012, Steinbrink 2009). Yet other authors refer to the growing socio-political and cultural potential for conflict arising from high immigrant quotas (Bouquet 2003 for Ivory Coast).

³⁹ On the concept of vulnerability, see the remarks in Chapter 5.5.

- Migrant income transfers to households of origin in the rural areas are indispensable to a vast number of rural households.⁴⁰ They cover systemic “subsistence gaps” such as the need for money in an emergency (cf. Dorlöchter-Sulser 2014⁴¹). Some remittances are used for investment, such as to build a house (ibid.). There is an absence of appropriate data to evaluate the extent and potential of remittances sent to families of origin in the rural areas of SSA (cf. Ayans Aga, Martinez Peria 2014; Sander, Munzele Maimbo 2003).⁴² The following table illustrates the scale of international migration and the corresponding remittances for the countries under review in the research project on structural change in the rural areas. There is a huge difference in the emigrant share of the total population between Benin with 5.8% and Ethiopia with 0.7%.

Table 2: Share of international migrants and remittance amounts						
Country	Number of emigrants	% of total population	Incoming remittances 2003 (US)	Incoming remittances 2010	Outgoing remittances 2003	Outgoing remittances 2010 (2009)
Benin	531,600	5.8	55	236	6	–
Ethiopia	620,100	0.7				
Zambia	185,800	1.4	36	71	72	66
Source: own presentation, data from Migration and Remittances: World Bank Fact Book (2011)						

- Urbanization has an inherent potential for development, since it makes infrastructure and social transfers more accessible. At the same time, it should be kept in mind that in reality many cities in SSA can barely cope with mass immigration from both a planning and a financial perspective (cf. Black et al. 2006 and Herrmann et al. 2015).
- Notwithstanding the individual social conflicts and trade-offs it triggers, value dualism is a significant factor when it comes to making existential compromises in the balancing act between family solidarity ties and the demands of an urban market economy world.

Multi-locations and value dualism are nonetheless associated with severe disadvantages:

- Lack of labour and agricultural knowledge are the two most common obstacles to intensifying small-scale farming. In agriculturally productive households that have lost (mostly) male labour to migration, women, children and the elderly take on the responsibility of working the land. These households rarely have an opportunity to compensate the labour shortfall with improved methods or equipment. The term “feminization of agriculture” is used in this context (see below).
- The migration of family members is frequently associated with further social costs. It leads notably in the case of migration within rural regions to renewed conflict when land or water resources, for example, become scarce in the in-migration area.

⁴⁰ Estimates of the share of households with remittances from the urban centres or from abroad fluctuate between 20 and 33% (cf. Bryceson 2002, De Haan 2010 and Godoy et al. 2012).

⁴¹ Dorlöchter-Sulser’s study explores the functions of circular migration and remittances in livelihoods in Niger and how these altered in the course of history under changing economic and political conditions.

⁴² Data from the IMF or World Bank refers to remittances from international migration and is nationally aggregated. No distinctions are made between rural and urban addressees or regions of origin.

- With reference to the significance of migration for rural transformation, households should be distinguished between those struggling at subsistence level and those with at least a modicum of prosperity. The former can be seen as translocal “survival communities” (Steinbrink, Lohnert 2005; Steinbrink 2009; Schutten 2012). Here migration becomes a coping strategy with little or no structural effect on social circumstances, since migrant incomes are mostly used for consumption purposes. In moderately well-off households, on the other hand, income from migration is used for investment, thus contributing in the long run to socio-economic advancement.
- The value dualism described earlier between the promise of urban social mobility (opportunities for social advancement) and individualization, on the one hand, and the need to fulfil family obligations, such as remittances to home regions, on the other, restricts the ability of actors to use their income for productive investments. Remittances are of necessity mainly used for consumption purposes. At the same time, the number of cases where social solidarity rules are neglected is increasing, adding to the risk of social exclusion where the old and the sick are concerned.
- The trend towards a feminization of agriculture has not led to a noticeable improvement in the social position of women. In reality the minor degree of control women have over household incomes, including what they themselves earn, persists almost unaltered (UN 2010). In SSA women make up approximately 50% of the work force (FAO 2011: 5 and 32⁴³) but only own a maximum of 20% of the cultivated area (FAO 2011). If land rights are formalized, these inequities could either deteriorate or improve (cf. Chapter 5.2 and Schäfer 2002). Men tend to leave the less fertile crop areas to their wives, who then tend to cultivate them on a communal basis. Women are also disadvantaged when it comes to accessing extension services. All told, no more than 5% of small-scale farmers are the target of these services.⁴⁴ To this day, international co-operation still mirrors the systematic discrimination of women. Despite numerous projects and micro-credit for women, not even 10% of ODA funds channelled into fishery, forestry and agriculture take gender issues explicitly into account (FAO 2011⁴⁵). Finally, women in rural labour markets are faced with less opportunities than men and receive smaller daily wages. Hence the bias is ubiquitous throughout agriculture: land and resources, rural labour markets, agricultural extension services, financial services, disposal of social capital, and access to new technologies (FAO 2011).

On the whole it can be said that new poverty risks are inherent in the extremely rapid process of urbanization, since the unbridled growth of large cities is rarely coupled with a corresponding increase in productive employment, urban planning measures and the creation of supply and infrastructure capacities (Herrmann et al. 2015; Black et al. 2006). It is quite clear that the rural areas in SSA are of considerable economic but also social significance and are charged with several tasks (such as care of children and the elderly). It should also be remarked that as a result of the many forms of migration to the urban centres (short-term circular, long-term (generational) circular, interrupted or long-term) poverty is often simply relocated to the cities.

⁴³ Quantitative data on female labour in the agricultural sector is not available.

⁴⁴ As a rule only the contract signatories (men) receive agricultural advice in contract farming, although women do the actual work. This leads to discontinuities in the transfer of knowledge.

⁴⁵ Cf. URL: www.fao.org/gender/gender-home/gender-programme/gender-investment/en (last accessed: 03.08.2015).

Conclusion: The main characteristic of rural and rural-urban livelihood strategies is the option of circular-seasonal or permanent migration. Livelihoods respond rapidly to real or perceived income differences and opportunities with migration to other, mostly urban regions. Migration is a “robust” phenomenon⁴⁶. It stabilizes rural, i.e., multi- or translocal survival communities whose socio-economic circumstances are increasingly precarious. From this perspective migration in fast-growing urban areas provides very little opportunity for structural poverty reduction or socio-economic advancement. Actors are caught between the demands of subsistence logic and an urban society based on individualism and market dictates. Migration to more favourable regions could raise competition for scarce resources and the potential for conflict. All told, migration is a self-perpetuating mechanism that ultimately contributes to rapid urbanization. This notwithstanding, the destination and length of migration remains a moveable feast, since the overwhelming majority of rural migrants in SSA come from very poor, vulnerable households. Migrants have no choice but to maintain strong ties to these rural livelihoods in order to survive and to contribute to their survival. Rural-urban migration does not imply final abandonment of rural sources of income but is rather a manifestation of flexible and complementary livelihood strategies.

It can be assumed that population growth in SSA – even within rural regions – will persist up to (at least) 2050. Population density is expected to rise quickly in the metropolitan regions but also in small and mid-sized towns, as well as in rural regions making vibrant economic progress (e.g., introduction of mining or agricultural industry with employment impact).⁴⁷

5.5 Ecological dimension: changes in natural livelihoods

Rural transformation goes along with a growing demand for food and results in a change in the use of natural resources.

Land conversion reduces the stock of natural areas (e.g., forest, savannah, wetlands) so that their function for humans can no longer be fulfilled (e.g., provision of wood and water, biodiversity). On the other hand, intensifying land use to achieve higher productivity also poses a threat to the environment (e.g., use and pollution of water resources, erosion, soil salinization, compaction and acidification) if accompanied by increased use of chemicals, irrigation techniques and heavy equipment, for example, or these are not carried out “professionally” and with efficiency.

⁴⁶ The data deficit mentioned earlier is the obstacle to a serious estimate of migration increases. It is evident nonetheless that migration has gained in significance.

⁴⁷ A comparison of PRSP strategies in different countries of Sub-Saharan Africa indicates that some of these countries point to the issue of accelerated urban growth and the spreading of slums inhabited by migrants (cf. Black et al. 2006).

Changes in the use of natural resources are a common feature of rural transformation. At the same time, resource changes and shortfalls can trigger this structural change by forcing the adjustment of cultivation methods or of livelihoods. The impact of both directions will be considered here. **Section a** below outlines key changes to natural resources and ecosystems in Africa in recent decades.⁴⁸ **Section b** refers to current hypotheses on the most important natural and man-made drivers of these dynamics. **Section c** elaborates on the impacts on rural transformation and on society as a whole.

a. Key trends

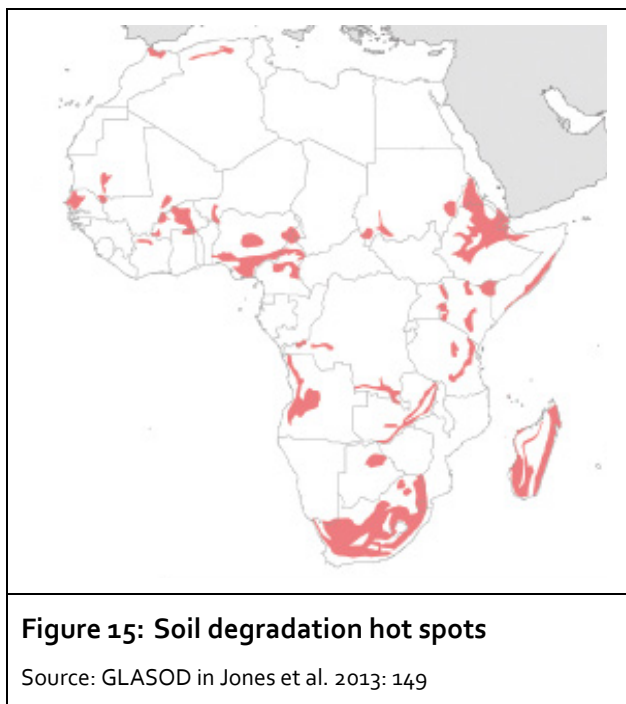
The ongoing process of change in the availability of natural resources is rooted in growing degradation of land and water resources (Jayne et al. 2014:10). Although the respective causal factors clearly differ depending on the socio-spatial context (e.g., resources, rights, usage systems), Sub-Saharan Africa shows evidence of a general trend towards declining soil quality, dwindling availability of water and forests, and loss of ecosystem services.

Soil degradation and land shortage: Fertile land is spread unevenly throughout the African continent. More than half of the entire area is unsuitable for agriculture (UNEP 2008). Land degradation manifests itself in different forms, such as erosion processes (water, wind), salinization, contamination, compaction, and loss of biodiversity. In this way soils lose their functional characteristics as well as their humus and nutrient content, which in turn leads to low yields. Loss of soil nutrients is all the more serious given that under natural conditions the nutrient content of Sub-Saharan soils is rated as low in a global comparison (FAO 2011).

Hot spots of current degradation and shortage tendencies are found in densely populated regions such as the Ethiopian highland, Madagascar, Rwanda, Burundi, Malawi, parts of Nigeria, Kenya and Uganda, and southern Africa (cf. Figure 15). Here and in other areas, land and water shortages overlap, as in the Tigray region of Ethiopia and parts of the Sahel zone. Of the countries under review in the research project, Ethiopia has to contend with far more dramatic ecological developments than Zambia or Benin. The Ethiopian highland, for example, suffers heavily from land shortage as a result of high population densities and fragile ecosystems, where sustainable crop land expansion is out of the question. Zambia, on the other hand, has no shortage of fertile land, although crop land degradation is already a problem in some locations.

Deforestation and loss of biodiversity: Deforestation is a massive problem in particular in the mountainous, but even in some lowland regions of Sub-Saharan Africa, causing processes of heavy soil erosion in many areas (erosion gullies, lateralization effect). Sediments are washed from the soil and today give numerous African rivers their typical brownish-red colour. Progressive deforestation, particularly of dry forests, also poses a major problem in Zambia and Benin. Evidence of a growing loss of biodiversity has been observed in deforestation areas. This is aggravated by the spread of invasive plant species with a tendency to spread fast in degraded soils. In many countries the biological invasion of exotic species is one of the main reasons for loss of biodiversity (UNEP 2008).

⁴⁸ This is not an in-depth discussion but simply an attempt to point out the generally undisputed trends described in the literature and to make their relevance clear for the potential and constraints of rural transformation.



Increased water shortages: Apart from the importance of soil quality and the access to land, water availability based on precipitations and ground water is crucial to the survival of the rural population (drinking water, animal watering holes, irrigation). Rain-fed crops are cultivated on 95% of the farm land (UNEP 2010:2), occasionally in marginal locations in dry areas with very little rain and numerous instances of extreme climate events (especially in the Sahel zone and the Horn of Africa). Although significant amounts of ground water are present in many of these low precipitation areas, their depth renders them inaccessible or the cost of extraction is too high.⁴⁹ On the one hand, there are water-deficient regions, while at the other end of the spectrum there are areas rich in water resources, the so-called 'water towers' mostly found in the mountains (UNEP 2010:6). Against the background of increased water consumption by a growing population, urbanization and the expansion of irrigation agriculture, a reduction in water availability per capita is inevitable in all Sub-Saharan African countries (cf. Figure 16). Water shortage (less than 1 000 m³ per capita per annum) poses a vast threat especially to southern and East Africa. In the course of urbanization, of expanding irrigation agriculture (introduction of salts, nutrients, pesticides) and of mining, water contamination has become a serious problem in many places, for example in Zambia as a result of copper mining.

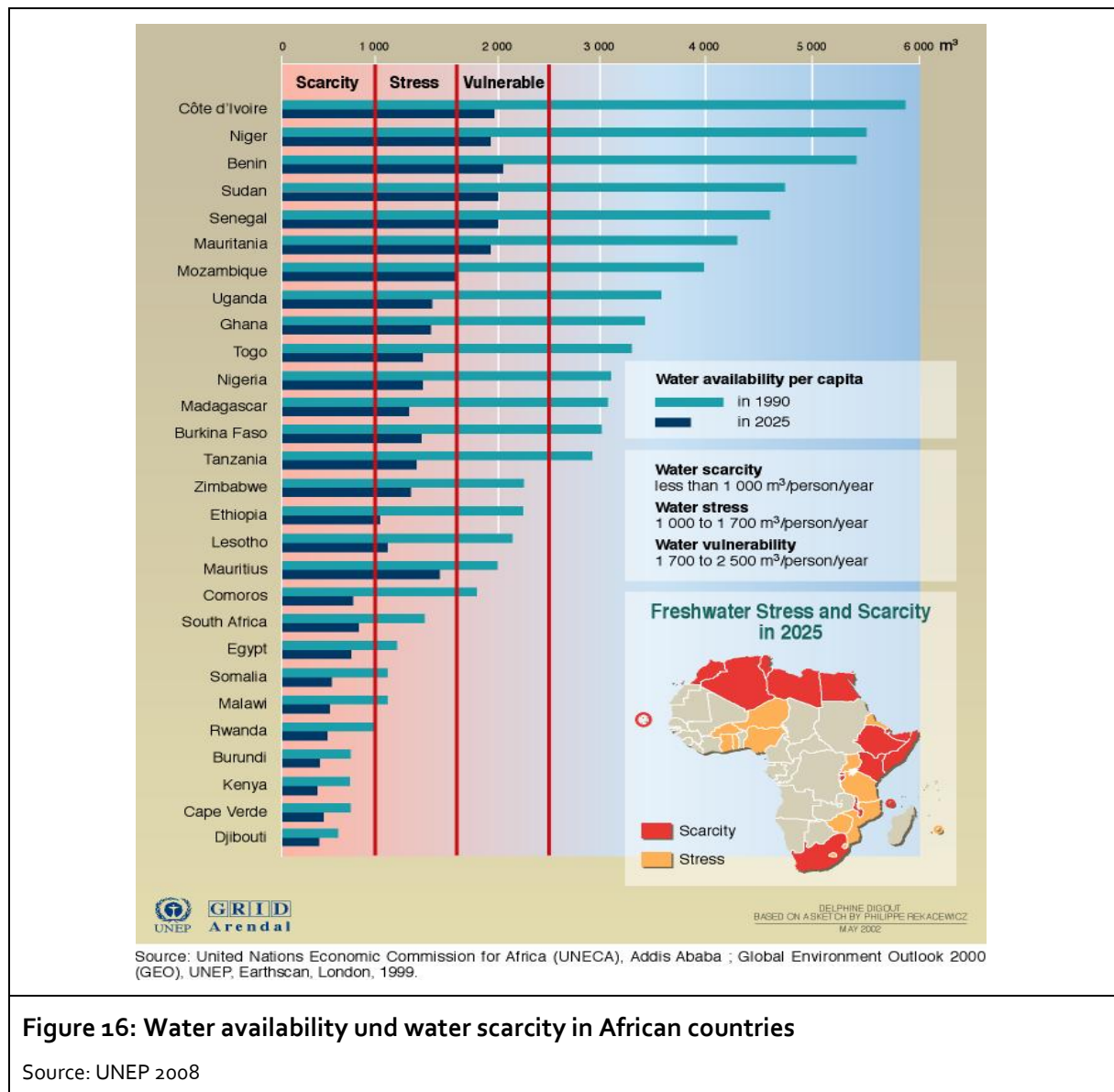
Increased variability of precipitation and extreme climate events: All in all global climate change generates greater variability in precipitation combined with extreme climate events such as drought, torrential rain and higher temperatures. Given the naturally short rainy seasons in some parts of SSA, this makes for further destabilization of conditions for farm production, resulting in a heightened risk of crop failure or poor harvests⁵⁰.

⁴⁹ Due to the occurrence of ground water, water-deficient regions are rarely marked as such in overview maps.

⁵⁰ Optimum growth temperatures and minimum and maximum growth seasons for cultivars can only be influenced to a certain degree. Seeds adapted to local conditions are hard to come by, more costly in application and may, as in early ripening varieties, lead to lower yields.

b. Key drivers

The driving factors for heightened degradation of natural resources are climate change, rising global demands for agricultural products and mineral resources, simplified versions of conventional farming under adverse conditions, growing population density, and the introduction of new, partly ill-adapted resource management techniques as promoted by agricultural, economic and development policies.



Climate change: The impacts of climate change in Africa up to now and those predicted for the future are heterogeneous in the extreme. On the whole, there is a tendency towards higher temperatures and greater variability in precipitation (spatial and temporal distribution, volume), jeopardizing agricultural production and food security in the process (Boko et al. 2007). Forecasts show that rising temperatures will lead to a significant reduction in crop yields of, for example, wheat, soya beans and maize. Depending on the modelling and the region concerned, however, the scope of this change is assessed very differently. There is a consensus that the probable occurrence of extreme

climate events is on the increase, as is the vulnerability of regions already affected. Semi-arid Sahel regions, where rain-fed crops are cultivated under harsh conditions, are seen as particularly vulnerable. *"A number of countries in Africa already face semi-arid conditions that make agriculture challenging, and climate change will be likely to reduce the length of growing seasons as well as force large regions of marginal agriculture out of production. Projected reductions in yield in some countries could be as much as 50% by 2020."* (Boko et al. 2007). Nevertheless, there is no uniform trend in the Sahel zone towards more or less aridity. Analysis of satellite images of the West African Sahel zone indicate that a re-greening has taken place in the last twenty years (increase of vegetation coverage), although it remains unclear whether this is due to greater precipitation or land-use change.

Increased demand for resources: A further trend in rural Africa is the growing world demand for food and agricultural resources, particularly since the food crisis in 2008 (see Chapter 5.1). The attendant demand for land and water is evident, for example, in the appropriation of vast areas of land by private and public investors.

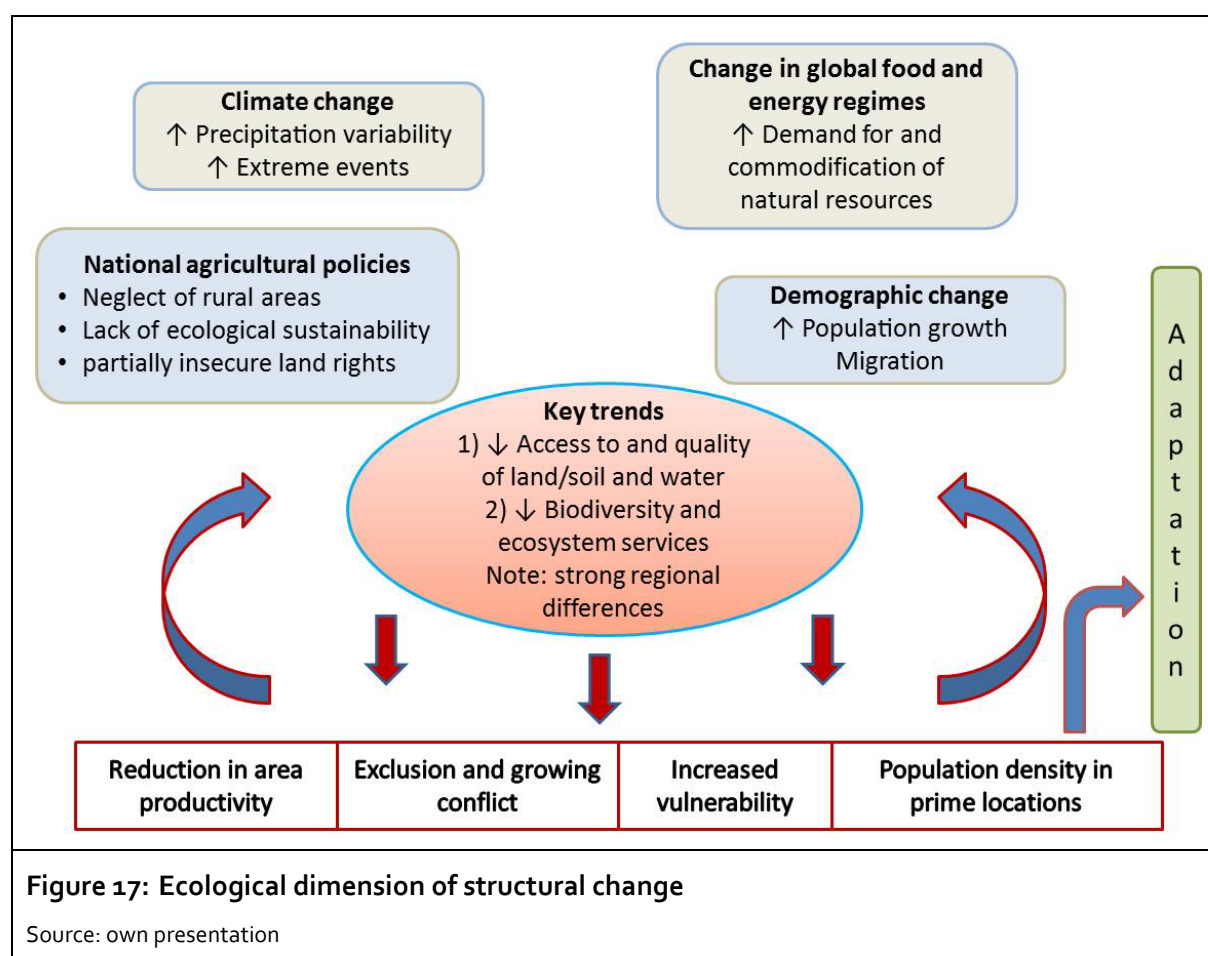
The preferred investment areas are ecologically advantageous locations with high irrigation potential, fertile soil and easy market access, all of which is also of vital importance to securing the livelihood of pastoralists and small-scale farmers. Where expansion potentials have been widely exhausted⁵¹ and where previous users are being driven from their resources, the outcome is often resource degradation. Small farmers and pastoralists are forced to shift to marginal locations or – if they are not in possession of the technical means to intensify – to resort to over-cropping (either by shortening the fallow periods while maintaining their production methods or by cultivating embankments, which leads to erosion). In Ethiopia, for instance, government land concessions and the expansion of farming areas are frequently concentrated on the peripheries, where pastoralists have settled in the lowland areas and the state uses land appropriation as an additional instrument to bolster its political control (Cotula et al. 2014).

National and international development policies: Although the Green Revolution in SSA did not have a broad-based effect (cf. Chapter 5.3) the efforts of most national governments and their international donor organizations to promote agriculture were marked by their thinking and their classic features: cultivation of high-yield and hybrid crop varieties, recourse to inputs supplied externally, and a tendency to spread monocultures and irrigation technologies that waste water. Agricultural biodiversity, sustainable soil management, sustainable rain-fed cropping, and humus management received less or no attention at all. Strategies of this kind frequently led to resource-use patterns that were highly detrimental to the environment and impacted negatively on biodiversity, carbon dioxide emissions, soil quality (erosion, loss of organic substances/humus, soil acidification, salinization and compaction) and the availability of water resources.

The importance of pastoralism in arid areas based on extensive mobile resource usage (cf. Chapter 6.3), was largely neglected by both international donors and national agricultural policies. Pastoralists were often driven by government extension services to intensive forms of pastoral farming (e.g., via settlement programmes and fencing). This narrowed the mobility and necessary flexibility of

51 Highly controversial is the issue of whether suitable land for cropping and pasturing still exists in Sub-Saharan Africa (Chamberlin et al. 2014). Critics of the assumption of a high potential for expansion of area for crop cultivation refer to the frequent absence of access to markets and infrastructure, the environmental cost of converting forest to farm land and the fact that extensive shifting cultivation and pastoral farming (periodically) take up a great deal more space than is generally assumed.

pastoral systems disproportionately and ultimately led to more acute degradation of pastoral resources.



Demographic change: The growing population in many SSA countries, which is now concentrating in the remaining favourable rural areas or migrating to the cities (cf. Chapter 5.1), is an additional driver of the current scarcity and degradation of natural resources. At the same time, population growth in many of the still sparsely populated rural regions of SSA continues to be a subordinate factor. There is, however, unmistakable evidence that increasing population density has led to a notable reduction in fallow land and that crops are being sown in areas unsuitable for farming. This makes the exact nature of resource degradation a site-specific phenomenon, allowing here only for generalized, highly aggregated conclusions. In addition to demographic change, other drivers such as climate change, management, demand and agricultural policies differ greatly from one region to another. In many instances, the interplay of these factors and the resultant constellations either foster or force structural change.

c. Impact of resource degradation

Environmental change alters behavioural patterns, contributing in the middle and long term to processes of transformation. As an immediate effect it heightens the **vulnerability**⁵² of rural populations. Degrading soils, shrinking pastures, chopped forests and dwindling water resources translates to a decrease in the output per crop unit or an increase in the risk of yield loss. Those concerned become more prone to shocks and crisis, coping methods are restricted and the risk of chronic food insecurity increases.

The escalation of a tense ecological situation coupled with socio-spatial exclusion tendencies of local resource user groups and the growing socially uneven distribution of resources increases the risk of **disputes** about land and the territorial control of the access to resources (Rettberg 2015).

These circumstances force local actors to adapt their livelihoods to their resources or access to resources and diversify their survival strategies. **Processes of migration** are a salient form of local adaptation. Migration from densely populated, peripheral, degraded farming regions primarily takes the direction of a) cities and b) more sparsely populated areas with farm employment prospects (Jayne et al. 2014a). As a result, areas in arid regions with an ecological and agricultural advantage have gradually been developed into settlement areas, where the extension of irrigation farming provides new sources of income. Since settlers are often temporary dwellers, have neither land rights nor local ecosystem knowledge and thus no incentive to work the land sustainably, land degradation is merely shifted to other locations.

Autonomous **adaptation** to resource degradation and climate change may either result in more sustainable practices of resource utilization or perseverance of non-sustainable methods of resource usage. The way in which actors at different levels respond to the scarcity of vital ecological resources cannot be generalized. It depends above all on their risk perceptions and their visions of a desirable future, as well as on resource availability, economic incentives, and access to knowledge and services. It has been observed, for example, that farm households in marginal, semi-arid areas of the Sahel are now investing more in the intensification of livestock farming, an adjustment that springs from greater climate variability, higher meat prices and the need to diversify income (Jones and Thornton et al. 2011). But trends in the opposite direction have likewise been detected: thus, the livelihood systems of farmers and pastoralists in the Sahel zone are now increasingly overlapping (Turner et al. 2011).

Conclusion: Where the shortage and degradation of natural resources meets the growing need for water and for land and forest products, greater productivity is required. Shaping this intensification and strengthening the capacities of small-scale producers to cope with the challenges involved rather than be pushed out of the game by resource-rich stakeholders is one of the major challenges associated with a socially inclusive and ecologically sustainable transformation of the rural areas in Sub-Saharan Africa.

⁵² Vulnerability defines the degree to which individuals, livelihood systems, social groups or societies are exposed to risk, on the one hand, and their protection and coping strategies, on the other. The term vulnerability can be applied to ecological, economic and political risks (Chambers 1989).

5.6 Interim conclusions: trends, drivers, impacts

The following is a telegram-style overview of the trends analysed along specific dimensions in Chapter 5.1 to 5.5 and their most important drivers and impacts (Overview 3). It finds that causes and effects cross-cut the dimensions.

Analysis of the development dynamics in Sub-Saharan Africa has shown that

- an ***economic shift*** from farm to non-farm income sources based on higher agricultural productivity (i.e., structural change following the pattern of industrial countries) has been thwarted up to now by poor employment dynamics in the urban industrial sectors and only moderate growth in the demand for agricultural products;
- ***institutional change*** in recent decades in the direction of privatization, deregulation, decentralization and democratization has had a strictly limited – socially and spatially selective – effect on the development dynamics of rural regions;
- ***agricultural and trade policies*** failed to provide relevant incentives to transform rural economic and social structures;
- ***value and action patterns*** in the context of diversified multi-local livelihood systems continue to be marked by the ambivalence of traditional and modern directions, i.e., of community-based subsistence and individualist market logic. This explains the contradictory trends in the preservation and erosion of traditional family support systems and the subsistence economy, limited risk capacity and ongoing high birth rates;
- ***ecosystems and natural livelihoods*** are more and more affected by degradation and insecurity.

Chapter 6 discusses the transformation pattern evolving from these trends (Chapter 6.1), the way the trends, their drivers and impacts are interlinked (nexus analysis), and the indications derived for future rural transformation in SSA (Chapter 6.2). Since the focus up to now has been on trends in small-holder livelihood systems and less on pastoral systems and economies, the latter will be addressed in Chapter 6.3.

Table 3: Overview of Trends, Drivers and Impacts

Dimension	Economic	Institutional	Political (agricultural policy)	Socio-cultural / demographic	Ecological
Trends	<ul style="list-style-type: none"> Continuity of diversified livelihoods pillared by subsistence, market production, wage labour / migration Low productivity increase No industrialization; poor employment growth From 1990: towards rural/urban livelihood systems Selective integration in global value chains for NTEP Socially and spatially selective process 	<ul style="list-style-type: none"> Privatization Deregulation Decentralization Increase in civil society organizations Land rights policy between privatization and enhancement of communal use rights 	<ul style="list-style-type: none"> From 1990: state regulation and services Urban bias through price and foreign trade policies (2.1) Selective promotion Distinction between agricultural and raw material resource countries From 1990: state withdrawal; low agricultural budget ODA From 2005: increased state intervention with staples (CAADP) 	<ul style="list-style-type: none"> Value and behaviour patterns: balance between subsistence and market economies Erosion of solidarity versus hindering social obligations Fundamentalism: new values Migration: immanent, variable, growing element of livelihood systems Demography: first stage of demographic transition 	<ul style="list-style-type: none"> Deteriorating soil quality Diminishing water availability Loss of biodiversity and ecosystem services Deforestation Increasing variability of precipitation and extreme climate events Strong regional differences On the whole: narrowing of natural resource potentials
Drivers	<ul style="list-style-type: none"> Global: low WM prices (up to 2005) From 1990: Globalization – new export opportunities / increased competition From 2007: boom in demand; high WM prices National: limited expansion of domestic demand See political dimension Regional: locational disadvantages (distance) 	<ul style="list-style-type: none"> Global: international organizations, Global Governance Agenda National: state failure Local: farm producer and user organizations not sustainable due to lack of access to market and services 	<ul style="list-style-type: none"> Global: low market incentive for state promotion of surplus production Reduction of ODA from 1990 National: dominant influence of urban consumers Agriculture source of rent-seeking Clientelist promotion policy Since democratization: broad-based input subsidies 	<ul style="list-style-type: none"> Value/behaviour patterns: monetarization, commodification with incomplete, insecure market integration Urbanization IT; global communication Migration: rural opportunities do not provide stable basis for survival Population increase Demography: lack of formal social security Lack of access to family planning in rural regions 	<ul style="list-style-type: none"> Global: climate change Growing international demand for rural resources National: political neglect Ecologically insensitive agricultural, environmental and economic policies Ambivalent land rights policy: use rights insecure Regional: growing population density
Impact	<ul style="list-style-type: none"> Divided between subsistence and market economy with high (food) insecurity Social and spatial differentiation From 2007: pressure and incentives to intensify Conflict over natural resources Risk of social exclusion 	<ul style="list-style-type: none"> Privatization: selective market integration; service vacuum in peripheral regions Decentralization: low impact due to poor financing of decentralization; limited influence on agriculture Civil society: assistance in land disputes Democratization: broad-based distribution of subsidies (4.3) CBO: little opportunity for small farmers to gain fair market access without organization 	<ul style="list-style-type: none"> Negative incentives for surplus production and intensification Trend towards emigration from the land Persistent food insecurity Increased social and spatial differentiation depending on market integration One-sided promotion of input-intensive agriculture and overuse of water resources 	<ul style="list-style-type: none"> Value dualism: obstacle to productive investment on the one hand Risk of social exclusion on the other Migration: remittances Lack of labour to intensify Demography: high social costs in densely populated regions Growing problem of release of labour force from agriculture 	<ul style="list-style-type: none"> Reduction of area productivity High production risk Vulnerability Food insecurity Migration; concentration on locations with advantages

Source: own presentation

6 Synthesis: rural transformation dimensions and their mutual links

6.1 The pattern of rural transformation in Sub-Saharan Africa

Structural change in Sub-Saharan Africa up to now must be described as hesitant measured against indicators such as agricultural sector share, agricultural productivity, farm sizes or share of subsistence production. Its pattern also differs from that of familiar historical cases in Europe and East Asia. **What we see in SSA is a gradual shift from primarily small-holder to multi-local rural-urban livelihood systems with a growing share of urban-generated income sources** (cf. Binswanger-Mkhize 2012; Losch 2013; Haggblade et al. 2010). Transformation has thus occurred mostly within family livelihood systems that are diversified (cf. Figure 18). As the backbone of these systems, subsistence production is kept alive, as is the right to land in the home village (Losch et al. 2012). Migration to cities is essentially temporary in nature. In other words, should urban sources of income fall through (or by retirement from formal workplaces) there is always the option of returning to the land. In terms of response to changing market conditions, these multi-local livelihood systems are essentially flexible. Remigration to rural regions as a response to higher producer and consumer prices for food is by no means a rarity. Yet another feature of these tightly knit family ties between the urban and the rural regions apart from remittances is the reproductive activity of rural family relatives, who frequently take care of children and the elderly. Diversified livelihood systems associated with risk reduction are not some outmoded legacy of the past, but rather a response to poor growth in secure urban livelihood opportunities.

This cautious transformation of existing diversified small-farm livelihood systems is accompanied by growing social and spatial differentiation within the group of small-holders, depending on their degree of market integration. While over 75-80% of rural households suffer from unreliable access to commodity and labour markets, and economic services (Hazell, Rahman 2014)⁵³ the upper 10% of small-scale farmers has managed to gain stable access to national and international value chains in the last two decades (cf. Figure 19). Those in the lowest 10-15% segment have neither land nor labour sufficiently at their disposal to guarantee survival by their own means.

53 Farm sizes differ greatly according to country. While large farms predominate in South Africa, Namibia and Botswana, and play a certain role in countries like Mozambique, Zimbabwe and Zambia, at least in terms of the total area, most other African countries are looking at a majority of small farms or holdings of less than two hectares in size (Hazell, Rahman 2014).

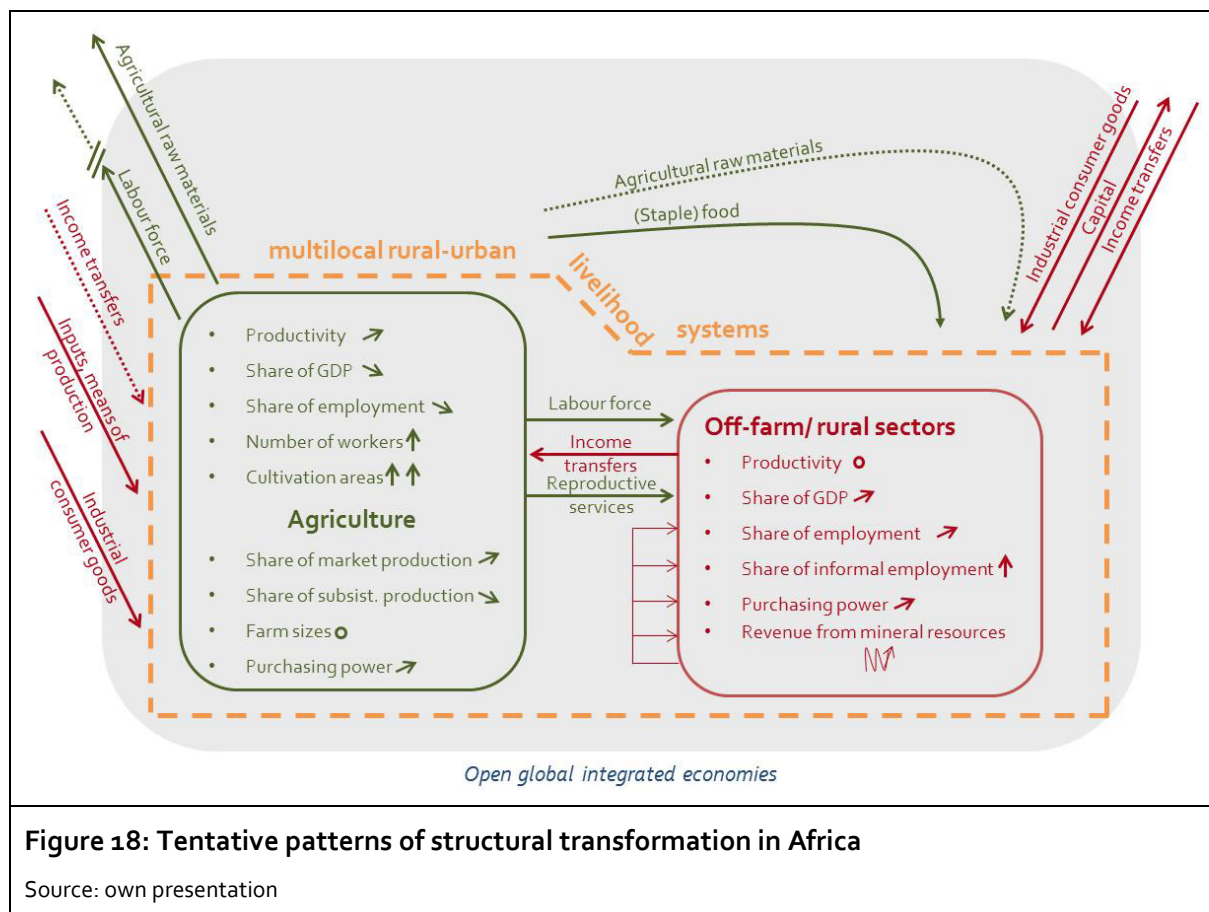


Figure 18: Tentative patterns of structural transformation in Africa

Source: own presentation

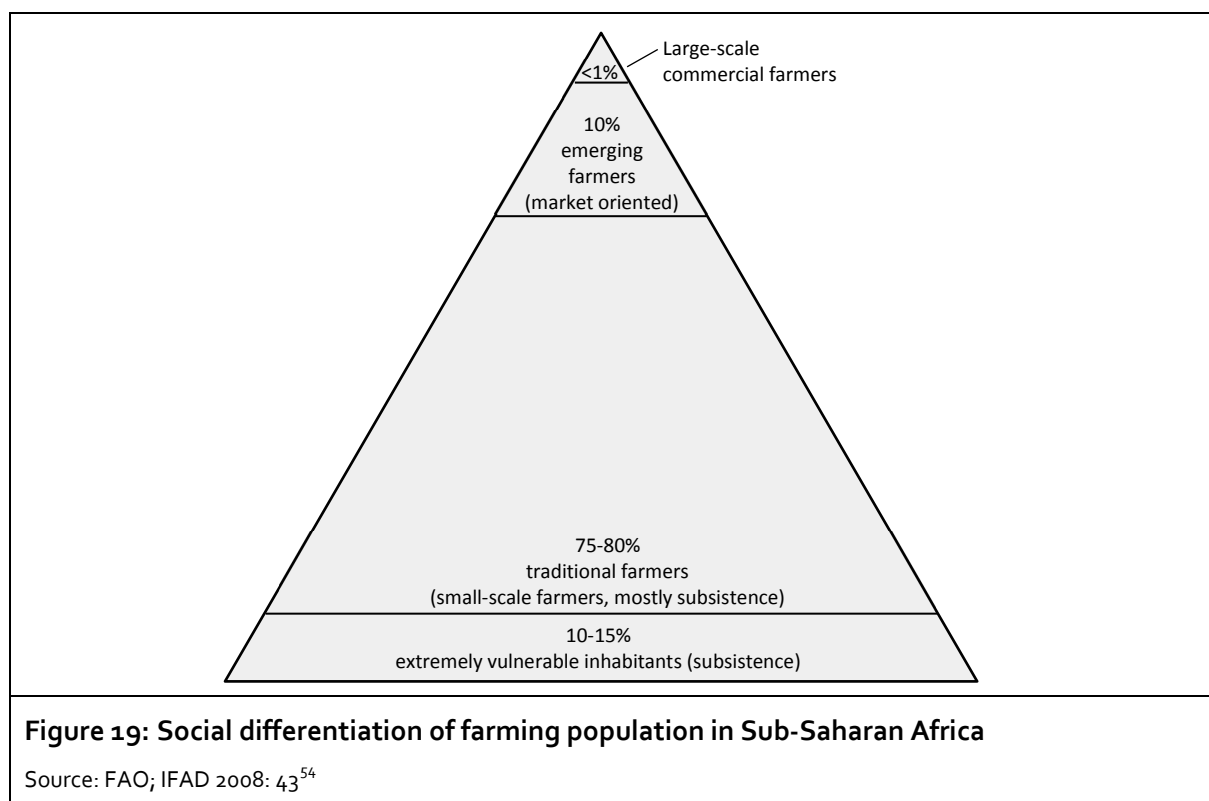


Figure 19: Social differentiation of farming population in Sub-Saharan Africa

Source: FAO; IFAD 2008: 43⁵⁴

⁵⁴ A similar typology is found in the OECD *5 world model* (2006). This one has been extended to include landless rural households.

This segment includes the elderly, orphans, the chronically ill, the landless and often people unable to keep pace with life after suffering a crisis. Many of them have dropped out of or were excluded from the local informal social networks⁵⁵.

Hence the situation in Sub-Saharan Africa today differs from that of the old European industrial countries of the nineteenth century and of the new East Asian industrial economies of the late twentieth century in the following ways:

- Africa today is a continent of open market-integrated rather than closed national economies. Global competition makes it difficult to create a labour-intensive industry that will absorb the labour force released from agriculture and tends to limit internal market demand for rural products.
- Attractive employment in dynamic and highly productive areas of the service sector is – not least as a result of a labour force surplus – highly limited. The majority of job-seekers in the cities are casualties of the push factor, i.e., they are driven from the countryside and its inadequate means of existence, rather than magnetized by the pull factor of urban employment opportunities.
- Contrary to Europe in the nineteenth and early twentieth century, today migration embargoes imposed by rich countries seriously curtail migration to overseas countries.
- Rural development in the context of a globalized economy is less dependent on national industry outlays: inputs, means of production, innovations and industrial consumer goods can all be imported, albeit occasionally at a high cost and regardless of dependencies.

Conclusion: While transformation from rural to urban sectors following the European and East Asian model seems improbable for SSA today and most likely doomed to failure, there is evidence of opportunities for structural change within the rural areas towards more intensive forms of agriculture aimed at world markets, not least as a result of greater global demand for agricultural products since 2005.

Analysis of the linkages between the multi-dimensional drivers currently at play gives a more concrete appraisal of these opportunities.

⁵⁵ This applies in particular to single elderly widows. In certain regions these women are stigmatized as witches (e.g., in northern Ghana) and banned to so-called “Witch Camps”.

6.2 Nexus analysis: interlinking trends, drivers and impacts

Table 4 shows the current factors vital to rural transformation in SSA and their linkages. It is assumed that given the persistent growth in the rural population and limited opportunities to absorb rural labour force surpluses into non-farm sectors, a structural transformation of the economy will most likely start from the agricultural sector. It can furthermore be assumed that linking economic and ecological dynamics will be a major driving force for structural change based on agriculture. The latter can only be achieved, however, in combination with socio-cultural factors, in other words it depends largely on the will and skill of the primary actors concerned, who rely to a high degree on the political and institutional framework conditions in place (cf. Figure 20).

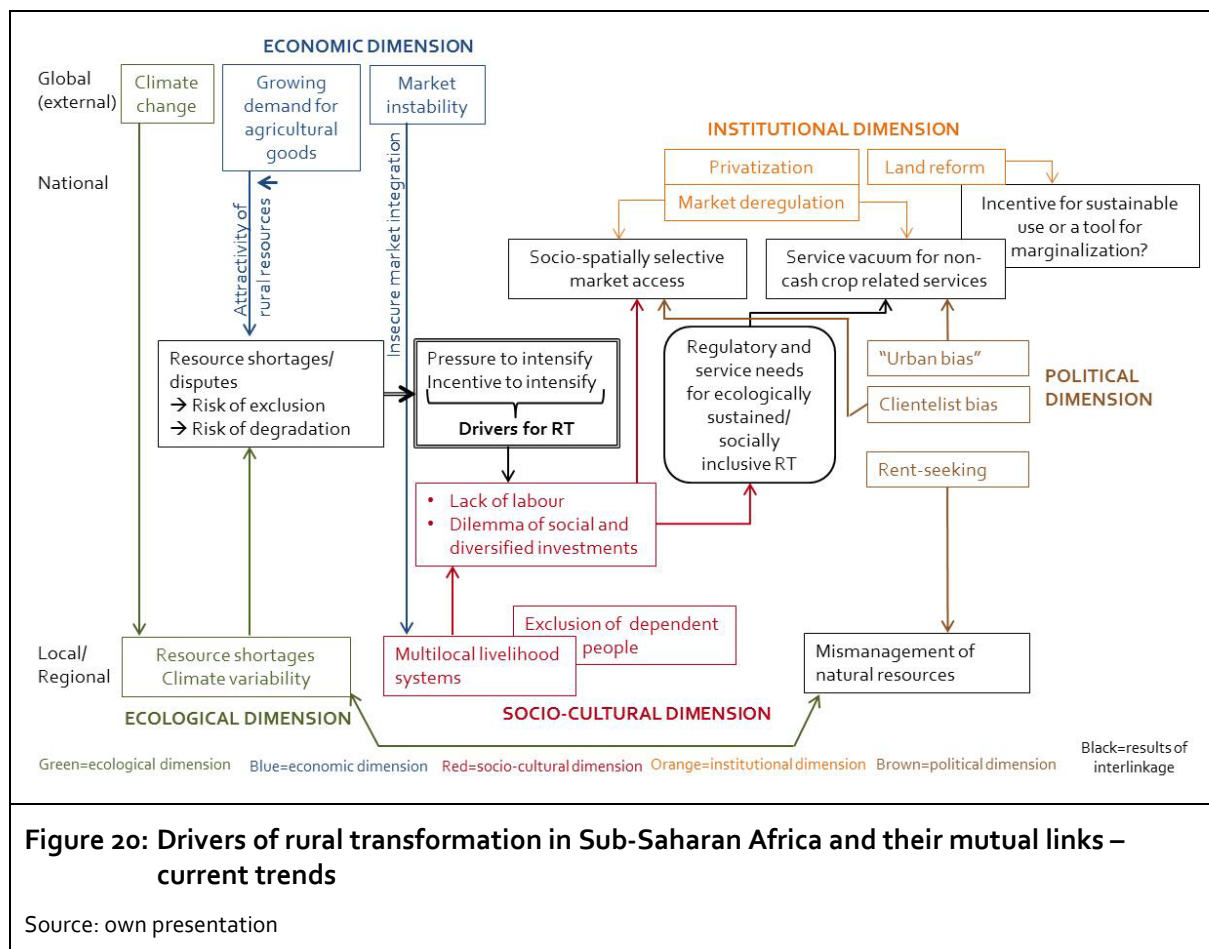
Economic-ecological nexus: The main drivers of accelerated rural transformation in SSA derive from the growing global demand for agricultural goods and the scarcity of resources in numerous – albeit not all – rural regions of SSA, which in many instances coincides with greater climate variability. The collision between demand and scarcity has led to a marked growth in the demand for rural resources (land, water, forest) by internal and external investors since 2008, a phenomenon that creates resource conflicts, increases tendencies to overuse and bears the risk of squeezing out the weaker local user groups. On the other hand, it generates pressure to intensify cultivation and as a result of higher prices for rural products is simultaneously an incentive to do so. Pressure and incentives for intensification go along with considerable intensification potentials in most agricultural production locations in SSA. This constellation has the potential to accelerate rural transformation (cf. Jayne et al. 2014; Rauch 2014).

Nexus between economic / ecological pressure to intensify and socio-cultural factors: In the context of their diversified multi-local livelihood systems, many members of rural small-holder families have turned their back on agricultural production to a certain degree. Those who remain in the villages are often women, children and the elderly, who are left to cultivate the land. The implication is that lack of the necessary labour, often accompanied by loss of farming knowledge and innovative powers, tends to constrain a flexible response to the above-mentioned incentives and challenges associated with increasing productivity. Moreover, climate and market risks have forced the majority of small-holder families into risk reduction strategies of diversification and social investment. These, however, tend to partly contradict the requirements of intensification, which are often geared to a higher degree of specialization and productive investments. In addition, most small-scale farmers are not sufficiently organized to gain access to markets and services with fair conditions. Hence, after decades of neglect, African smallholders are in no position to respond rapidly and in an ecologically sustainable manner to the pressures and incentives to intensify (cf. Rauch 2012). It should be kept in mind that this low supply elasticity is not about a structural deficit in the small-holder economy. Rather, it is the outcome of twenty years of neglect of the rural areas and small-holder agriculture by governments and their international development agencies.

Table 4: Linkage matrix: Trends, Drivers and Impacts

Impact Driver	Economic	Institutional	Political	Socio-cultural	Ecological
Economic	<ul style="list-style-type: none"> Higher WM prices: incentive for market integration / intensification Limited industrialization: market integration barrier / intensification Unfavourable location: competition barrier ICT: more opportunities for fair market access Higher energy prices 	<ul style="list-style-type: none"> Efforts to control value chains by international agro-business and poor competitiveness of agriculture: demand for privatization of agro-services Diversified livelihoods and low intensification: reason for land rights reforms with a private property bias 	<ul style="list-style-type: none"> Low market incentives for state promotion of surplus production Disposal of rent sources: no incentive to promote productivity 	<ul style="list-style-type: none"> Incomplete / insecure market integration: upholding of diversification and social investment in risk reduction Money transfers Monetarization: trend towards lack of solidarity Balance: value dualism; insecurity ICT: orientation toward global (consumer) trends 	<ul style="list-style-type: none"> Stronger valorization pressure / resource disputes: danger of increasing degradation; but opportunity for ecological intensification Consumer demand for organic products: Incentives for ecological intensification
Institutional	<ul style="list-style-type: none"> Privatization: selective market integration and service access Privatization: higher costs for public goods Decentralization.: little influence on agro-services Poor level of farmer organization: rare opportunities for fair market access Land right: negative incentive to intensify 	<ul style="list-style-type: none"> Global Governance: Influence on reform of national regulation 	<ul style="list-style-type: none"> Privatization: state withdrawal from agro-services Democratization: trend towards inclusive promotion, subsidizing 	<ul style="list-style-type: none"> Privatization: growing emergence of individualist value/behaviour patterns Decentralization: hope for abolition of clientelist policies through democratic grass-roots structures 	<ul style="list-style-type: none"> Land rights: hope for more incentives for sustainable use versus land appropriation by external, ruthless owners interested in capital investment Inadequate legal framework
Political	<ul style="list-style-type: none"> Mostly negative incentives for surplus production / intensification Input subsidies: some incentives for staple food production, one-sided and misguided State withdrawal: agro-service gap in peripheral locations Selective promotion: social and spatial differentiation 	<ul style="list-style-type: none"> Political interest / power relations prevent proper implementation of reforms of privatization, decentralization and land rights (clientelism, rent-seeking) 	<ul style="list-style-type: none"> Global influence on national policy: Withdrawal of donors from rural development affects state withdrawal 	<ul style="list-style-type: none"> Neglect of rural development: preference for rural-urban migration Lack of family planning services in rural regions: low birth control Politicization of cooperatives leads to discrediting of local organizations 	<ul style="list-style-type: none"> One-sided promotion of agriculture with a high external input bias Mismanagement of water resources (irrigation projects), corrupt deforestation
Socio-cultural	<ul style="list-style-type: none"> Value dualism / family obligations: obstacle to productive investment Multi-local livelihoods: lack of labour to intensify Population growth: aggravates problem of labour force exit from agriculture Inequity 	<ul style="list-style-type: none"> Informal institutions, family relations and ethno-religious networks influence modus operandi of modern institutions 	<ul style="list-style-type: none"> Clientelism: selective provision of services and subsidies 	<ul style="list-style-type: none"> Migration: value dualism Value decay of family solidarity: social exclusion Patriarchal tendencies: obstacle to family planning New values and support systems through fundamentalism Diaspora networks (response to migration) 	<ul style="list-style-type: none"> Erosion of socio-cultural rules for sustainable resource use Selectively: high population density raises use pressure on natural resources
Ecological	<ul style="list-style-type: none"> Resource shortage / degradation: reduced area productivity and yield security Resource shortage: pressure to intensify; incentive for land appropriation 	<ul style="list-style-type: none"> Degradation of natural resources: reason for land rights reforms 	<ul style="list-style-type: none"> Environmental policy heavily bound to international treaties and flow of funds 	<ul style="list-style-type: none"> Environmental conditions were traditionally a significant driver of socio-cultural norms and behaviour patterns (declining with migration and commercialization) 	<ul style="list-style-type: none"> Global climate change as cause and effect of regional / local resource degradation

Source: own presentation



The nexus between pressure to intensify and political-institutional aspects: Enabling small-holder families to react adequately to incentives and pressure to intensify calls for appropriate services and institutional rules.

This raises the following questions:

- How appropriate is the institutional setting in SSA to accomplish this task?
- How practical are the agricultural policy measures to support the majority of small-holder households when it comes to coping with market requirements (cf. Chapter 5.1) and sustainable resource usage (cf. Chapter 7.2)?

Privatization brought about socially and spatially selective access to services and markets, leaving most of the rural population with a service vacuum (cf. Chapter 5.2). This applies in particular to research and extension services not directly related to specific commodity chains, such as soil conservation measures and steps to reduce production risks. The latter, however, are essential if food security is to be improved.

Land framework conditions – depending on their design and implementation – have the potential to create the prerequisite for small farms to gain secure access to land and for incentives to invest in favour of sustainable land use. They also harbour the risk of crowding out poor and indebted small farmers and pastoralists from their means of livelihood (cf. Chapter 5.2). The design and implementation of land laws should consequently be seen as key variables for rural transformation that is both socially inclusive and ecologically sustainable.

Agricultural policies in several countries show a trend towards a return to state regulation of agricultural commodity prices and to subsidy policies in the area of staple foods. Agricultural budgets, however, are still way behind in terms of requirements for inclusive small-holder promotion, while their heavy fluctuation makes them incalculable. Agricultural interventions often lead to mismanagement of natural resources (e.g., through wasteful irrigation systems or the promotion of maize monocultures based on subsidized nitrogen fertilizer, cf. Chapter 5.3). Hence despite existing intensification potential, most rural households are unable to make use of them, while politics and institutions in most countries are not adequately positioned to provide them with effective support.

Conclusion: The convergence of increasing global demands for agricultural products and the scarcity of natural resources has, on the one hand, generated pressure on rural resource users to intensify and, on the other hand, the incentives to do so. Although the long neglected small-holders in SSA have the basic potential to intensify, their diversified, multi-local livelihood systems leave little room for manoeuvre when it comes to the rapid and effective mobilizing of this potential. In addition, institutional settings are ill-equipped to back small-holders with services and incentives to cope with the challenges concerned.

6.3 The pattern of transformation in pastoralism

a. On the significance and rationality of pastoral livelihood systems

Pastoralism in the sense of nomadic livestock farming is practised by more than twenty million people on approximately 43% of African territory, mostly in remote, sparsely populated arid regions. In many African countries pastoralism contributes significantly to the gross domestic product (GDP), in Mali, for example, with 44% of GDP (AU 2010). Henceforth understood as a collective term for heterogeneous forms of nomadic livestock farming, pastoralism provides livelihood systems in arid and semi-arid areas that are best suited to the environment and economically efficient under conditions of high climate variability and insecure time-space resource availability. High adaptability in dealing with extreme climate events is thus a constitutive component of the pastoral way of life practised notably in the Sahel zone (including Mali, Benin, Burkina Faso, Niger, Chad), the Horn of Africa (Ethiopia, Eritrea, Somalia) and in parts of southern Africa (e.g., Namibia).

The high degree of resilience in pastoralism is based on the extensive and opportunist use of communal land resources by camels, cattle, sheep and goats and the access to scattered agro-ecologically favourable pastures with seasonally varied feed potential and water availability. This combines with functional resource management institutions where collective action is key (Niamir-Fuller 1999, Little and McPeak 2014). Mobility should be understood here as a vital economic and ecological set of strategies. Cattle herd mobility contributes, on the one hand, to stimulation of pasture growth and the preservation of biodiversity and, on the other hand, is crucial to cattle reproduction and productivity (milk and meat production for domestic consumption and partly cattle export).

b. Trends: changing pastoral livelihood systems in Sub-Saharan Africa

From mid-twentieth century onwards this mobility became progressively confined. Several factors led to **massive land loss and poverty**, which in turn brought gradual change to pastoral livelihood systems. The nature of this change and its different regional dynamics can be described as follows:

Diversification of livelihood systems combined with increased sedentarism: Shrinking cattle herds resulted in increased food insecurity and greater vulnerability, forcing a substantial share of pastoralists to find additional sources of food and income. Against this backdrop, translocal survival strategies based on complementarity have gained currency among sedentary and nomadic pastoralists, whereby extensive and intensive strategies are frequently combined. Moritz (2012) reports, for example, that peri-urban Fulbe pastoralists in North Cameroon leave part of their herds with nomadic pastoralists for extensive grazing, while the rest of the cattle is kept in the village on industrial feed. Increased sedentarism and non-pastoral economic activities to diversify family and clan livelihoods are the marked trends in pastoralism in the arid areas of Sub-Saharan Africa (Little et al. 2014). Local markets, where poor pastoralists sell small animals to exchange for grain, have gained ground in this context. Terms of trade for these products are highly unfavourable, particularly in times of drought, and increase vulnerability.

It is mostly women who make efforts to close the food gap by engaging in various innovative income-generating activities. Where natural conditions allow, many pastoralist have begun supplementary irrigation agriculture as a means of subsistence and income generation. They maintain close exchange relations (milk for grain) with their clan relatives, who continue to move around with their herds. The major significance of mutual material support in sedentary clan societies and social networks is a key reason why sedentarism occurs primarily within the home regions. In certain social and regional contexts, however, migration to cities farther afield is a major source of income generation (e.g., Fulbe and Tuareg in West Africa, Massai in East Africa).

Within the pastoral areas of Ethiopia and Kenya, in contrast, ***small urban centres are currently emerging or expanding***. This ties in with the trend towards pastoral sedentarism and migration from poverty-stricken areas shaped by small-holdings. Some of the fastest growing cities in Kenya are located in the pastoral areas. Increasingly, impoverished small-holders also tend to seek their fortune in less densely populated pastoral regions, where they work as wage labourers on irrigation plantations or engage in industrial or commercial activities.

Intensification of nomadic pastoral farming: Occasional government initiatives in the Sahel region rely on pasture management intensification in the form of territorially contained livestock mobility. Current proposals in Burkina Faso, for example, see the demarcation of pastoral areas as “development centres”, where modern, ‘innovative’ forms of livestock farming are practised. The idea is to increase productivity with technology. The proposals are reminiscent of the intensifying attempts of the World Bank and its American-style ranching projects in the 1970s, all of which failed utterly (Gonin and Gautier 2015). As yet there is no evidence of a broad trend towards more intensive forms of livestock farming.

Increased commercialization of livestock farming: Progressive commercialization and an increase in livestock markets is a current trend in East and West Africa. This is linked to a growing social stratification of prosperity, whereby a small group of market-integrated pastoralists with large herds is juxtaposed with a vast number of poor pastoralists (Aklilu and Catley 2010).

Those integrated in the export cattle trade are notably more prosperous pastoralists with 'surplus' cattle for the market. This process of commercialization generates the internal redistribution of cattle from poor to rich pastoralists (Akilu and Catley 2010), thereby increasing the vulnerability of many households. Hence the ***trend towards pastoral impoverishment*** is more a case of shifting stocks of cattle between different prosperity groups than of dwindling average livestock ownership per capita. A number of areas in this context show changes in the conventional forms of cattle thieving among pastoral groups. Both commercial and political motives (decentralization and territorial demands) are increasingly at play here.

Increased social fragmentation and institutional weakening: Monetization and commercialization, and trends towards a more accumulation-oriented development of land and livestock created incentives to make profits, thereby weakening pastoral clan society norms based on mutual support and sharing. This background explains the increase in social distinctions between the few who manage to improve their situation and the many who struggle to survive from one day to the next under extremely harsh conditions (Devereux 2006, Rettberg 2009, Catley et al. 2013). The result is mounting social tension and a crumbling sense of identity. The gradual disintegration of pastoral society is accompanied by the weakening of local institutions of pastoral resource use based on collective action and shared interests.

c. Drivers

The changes described above are primarily the result of state interventions and the penetration of market or commercial trends into the living environment of pastoral communities. Against a backdrop of stagnating or dwindling livestock herds, demographic growth has aggravated the crisis of pastoralism.

State policies: Appropriation of communal pastures by the state (e.g., to create national parks or commercial, irrigated cotton plantations) or by small-holders (extension of cultivation areas) leads to (at times violent) conflict and land degradation. The aim of state policies in SSA is to establish sedentarism and control pastoralists in order to effect the transition to agro-pastoralism. Pastoralists are in fact perceived by the state and several social groups as culturally backward, economically unproductive and ultimately responsible for land degradation. Pastoral regions tend to be peripheral areas with a fragmented state character and little state influence, where violent conflict is a common occurrence. Hence there is heightened political interest in consolidating power, something that has been shored up by the activities of extremist Islamic groups (e.g., in Mali, Niger, Somalia) who use pastoral regions as areas of recruitment and retreat.

Members of pastoral groups were (and still are) rarely represented politically and in the past have had almost no voice in deciding their future. Political marginalization went hand in hand with a ***change in land ownership legislation*** in the direction of privatization, notably in southern and East Africa. Collectively used pastoral resources were particularly affected, i.e., dry season pastures in wetlands and flooded areas. Use of these fertile regions faces growing competition between livestock farming and irrigation agriculture. Pastures that guaranteed the survival of pastoralists during dry seasons and drought periods have undergone a land-use change and are now notably used for commercial agriculture. Little and McPeak (2014) see this loss of cardinal resources as the main challenge to the future progress of pastoral livelihood systems. The risk of losing more land in these high potential areas is exacerbated by the rising international demand for agricultural products.

Small-holder competition for land use and the extension of agricultural areas, notably in West Africa, weakens the pastoralist position. Here, too, dry season pastures and permanent water availability are resources of fundamental importance to both farmers and pastoralists. When it comes to land-use disputes pastoralists are defeated as a rule, since farmers tend to have more political influence (Thebaud and Batterbury 2001). In addition, the expansion of irrigation agriculture, that is, intensified agricultural productivity is now at the centre of state interest and likewise a focus of international donors. Rarely protected, collective grazing pastures are now being converted into private property. Growing competition for control of the land has translated to practices of territorializing and exclusion on the part of all stakeholders, including pastoralists (Galvin et al. 2009, Rettberg 2015). As a result, grazing land in several areas is being fenced in by more prosperous pastoralists for their private use, excluding poorer actors in the process.

Value change and monetarization: The degree to which the pastoralist means of livelihood has been confined and made dependent on market-oriented activities and wage labour (e.g., Tuaregs as domestic servants) has changed pastoralist value patterns increasingly in the direction of those prevailing in market economies. In addition to poverty factors, it is the attractiveness of sedentary life in or adjacent to urban settlements for the younger generation that leads to shifting settlement patterns and the abandonment of mobile pastoralism. Opportunities for education, consumerism (chat, media), contact and communication with other groups hold the promise of a more exciting life.

d. Impacts

The socio-economic impact on the pastoralists concerned of more restricted pastoral living environments and the attendant transition to more diversified livelihood systems is ambivalent:

- Diminishing pasture land coupled with continued high numbers of cattle and unaltered usage systems leads to **degradation of grazing areas**, with the result that cattle feed diminishes and vulnerability in the face of drought increases.
- **Increased land disputes:** Land shortage and the struggles of various groups (state, small-holders, pastoralists) for land use⁵⁶ has deepened disputes and triggered processes of territorialization and commodification (Rettberg 2015), paving the way in many regions for territorial conflict.
- **Ambivalent risk impacts:** Whereas risks in nomadic livestock farming tend to increase, the trend towards diversifying livelihood system activities contributes to their reduction. On balance it can be said that – combined with social fragmentation – the impact on individual groups in pastoral communities differs greatly.
- **Gender:** Changing gender-specific divisions of labour creates an additional burden for women. At the same time, their growing economic power within the family enables them to defend their interests, demand more rights and question their cultural discrimination.

⁵⁶ There are, however, numerous examples of peaceful coexistence of nomadic livestock farmers and crop farmers.

Conclusion: Similar to small-holder livelihood systems, pastoralism is undergoing a process of gradual transformation: from extensive livelihood systems defined by subsistence and communal values to more diversified, partly monetarized economic systems and ways of life. Nomadic pastoral farming continues nonetheless. Not unlike small-holder or small-scale farming systems, this process is accompanied by socio-economic differentiation and shifting values. Debate in the last ten years has centred on the question of whether pastoralism has a future at all, considering mobility constraints and population growth. Pastoralists are visibly altering their livelihood systems in an effort to adapt to new frameworks. Whether this means the death of extensive nomadic pastoralism or not is highly debatable. The key issue here is whether, and if so how, pastoralists can intensify their production methods based on extensive resource use in a sustainable manner.

6.4 Concluding remarks on rural transformation in Sub-Saharan Africa

1. Structural change in post-colonial SSA can only be described as extremely modest. Transformation occurs for the most part within the context of more flexible and diversified rural-urban livelihood systems with a slight bias towards non-farm sources of income (non-livestock in the case of pastoralists). The subsistence economy, however, continues to be upheld.
2. The migration trend to the cities with reference to multi-local livelihood systems is by no means irreversible. It simply depends on the wages for labour, the terms of trade between the urban and the rural, and the distribution of opportunities to earn a living.
3. Since the year 2008, the coincidence of new world market dynamics and severe degradation of natural resources has led to accelerated farm-based rural transformation.
4. Contrary to the industrial countries, the main driver of change in Sub-Saharan Africa is the growing world demand for agricultural products rather than for an industrial labour force.
5. Most small-holders have – to varying degrees – unexploited potential to expand and intensify production.⁵⁷ What they need to activate this potential is enhanced institutional frameworks and guaranteed access to the appropriate services.⁵⁸

⁵⁷ A consensus on whether pastoralism bears similar potential to intensify has not yet been reached.

⁵⁸ The numerous projects that have successfully integrated resource-poor small-scale farmers into economically stable value chains or strengthened their resilience to climate variability with sustainable land management are a good example of what can be done to enable producers suffering from poverty and food insecurity to intensify. This can only be achieved, taking small-holder livelihood logics into account, by a suitable choice of products (e.g., considering seasonality) and techniques, and the promotion of producer associations.

7 Shaping rural transformation in Sub-Saharan Africa in a socially inclusive and ecologically sustainable manner: options, hypotheses, questions

More detailed statements on the socially inclusive and ecologically sustainable design of rural transformation are expected in the form of findings from the research project. Nonetheless, the results of this study allow for several preliminary hypotheses on the political approach to rural transformation. Social inclusion and ecological sustainability as the key components are first of all defined in more detail (Chapter 7.1).⁵⁹ Current debates on rural transformation will be explored against this background (Chapter 7.2). The concluding section constructs hypotheses on a socially inclusive and ecologically sustainable transformation design (7.3).

7.1 Key criteria for rural transformation: social inclusion and ecological sustainability

The historical analyses in the previous chapters demonstrate that structural change is a multi-dimensional process contingent on developments at regional, national and global level. Consequently structural change can neither be planned nor designed to perfection. This project seeks to outline potential transformation scenarios and identify room for manoeuvre and creative options that will enable rural transformation that is both socially inclusive and ecologically sustainable. These two target areas are elaborated and made operational in the following.

7.1.1 Social inclusion

Inclusive and exclusive structural change: The examples used here illustrate that transformation is commonly linked to changes in the distribution of economic, ecological, socio-cultural and institutional (power) resources (cf. Chapters 3, 4 and 5). Structural change confronts certain social groups with gains and losses of disposal rights and access to resources. Some groups gain new opportunities for market access and participation in political issues, while others lose them. Hence evaluating processes of transformation or structural change in developing countries is not simply about their macro-economic welfare and growth impact but also about the consequences for particularly vulnerable groups and those at risk of poverty. Since the study presented here is based on the multi-dimensional concept of sustainable livelihoods with reference to the large group of resource-poor

⁵⁹ Focusing on social inclusion and ecological sustainability is dictated by the assignment on which the research project is based and the SEWOH aims. We naturally assume that structural change of any kind must also meet the criteria of economic viability and competitiveness.

actors in the rural areas (land-poor, landless, pastoralists), the terms inclusion and exclusion⁶⁰ – notably used in poverty research on developing countries – were selected as criteria to assess the social consequences of structural change (cf. Beall, Pirón 2005; Khan 2012; Kabeer 2000). The inclusion-exclusion concept allows for a process-oriented, multi-dimensional and differentiated understanding of poverty. This understanding makes it possible to explore the origin and perpetuation of poverty and deprivation. The repeatedly criticized confinement of the term poverty to mean income poverty is avoided with this approach. Looking at poverty from the perspective of inclusion and exclusion means examining the systematic or structural causes of poverty among certain social groups and the possibility of enhancing the capabilities of these groups (Sen 2000).

The inclusion-exclusion concept centres on social relationships and forms of social cooperation achieved through institutionalized rules in organizations and institutions. They arise in three contexts:

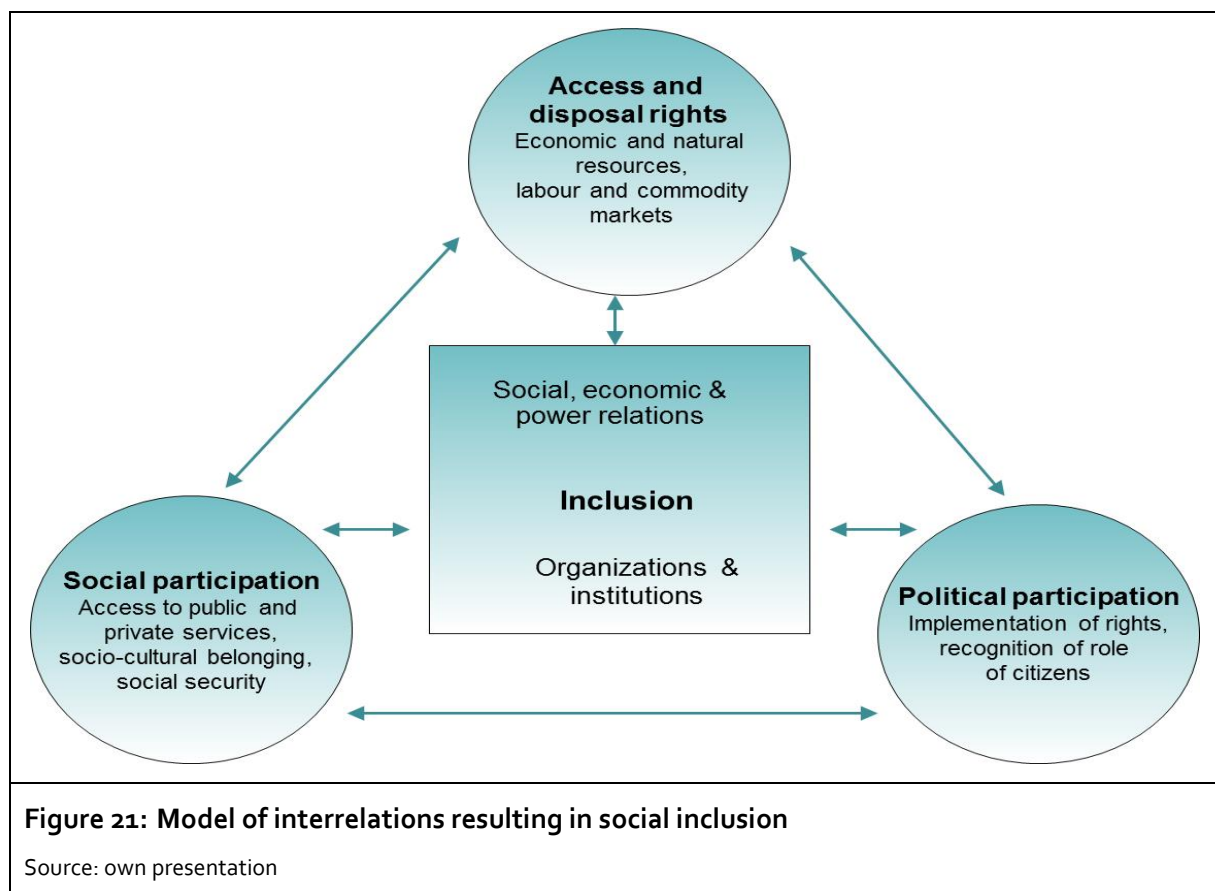
- access and disposal rights to various resources,
- opportunities for socio-cultural participation,
- opportunities for political participation.

Exclusion or inclusion of specific groups (e.g., men and women, ethno-cultural groups, pastoralists or land-poor small-holders) is rarely all-embracing. It can be confined to some areas without affecting others (Hickey, du Toit 2007). In certain regions, for example, women have gradually gained formal rights to political participation but are being excluded from the markets to an increasing degree. The inclusion model envisaged below implies, however, the occurrence of a reciprocal effect between the areas concerned. People who are excluded from socio-cultural areas as a result of ethnic discrimination are often ill-equipped to access the economic sphere, since they are unable to establish trust relations for access to, for example, networks and value chains. It should be kept in mind that inclusion and exclusion are always understood here as structural mechanisms rather than an actor strategy or self-imposed option (e.g., retreat to a mendicant order). It is about a social exclusion that cannot be avoided by the actors concerned (Wennink et al. 2007). The focus is on processes, i.e., structural change over time, rather than on conditions. This speaks for application of the inclusion-exclusion concept to the question of transformation in the rural areas. As mentioned earlier, the concept can be applied as well to certain household types or modes of production. It can be linked to the sustainable livelihood approach, since it considers exclusion from or withdrawal of specific rights and access opportunities to social, economic, political and socio-symbolic resources.

An assessment of the inclusive impacts of possible scenarios for change in selected countries of Sub-Saharan Africa calls for operationalizing the concept of inclusion and exclusion. How can we tell whether structural change in specific rural areas of SSA has led to the inclusion or exclusion of cer-

60 An alternative concept speaks of social compatibility. The term social compatibility (similar to environmental impact assessment) was used in the 1970s and 1980s in the context of technology assessment. The notion of social compatibility asks whether the social impact of vast (technological) innovations is in harmony with the norms and requirements of the welfare state. Today the term crops up in the context of environmental management systems, quality management and work safety. The social compatibility concept is not applied uniformly. It is frequently applied to cushion the socially undesirable side effects of interventions (e.g., job losses) and to alleviate social strains. Thus social compatibility revolves around socio-political measures to compensate for deficits or the unwelcome impact of measures perceived to be necessary or inevitable. This approach complies with the OECD model: only socio-political instruments or transfers are now conceivable for actors in the “fifth world” (and possibly some in the fourth). Actors are exclusively turned into beneficiaries of social transfer (public welfare).

tain groups? Table 5 (adapted from Schookner⁶¹) illustrates the inclusion-exclusion concept in more concrete terms. The operationalization was adjusted to the context of rural transformation in SSA. Indicators of exclusion and inclusion are shown for each of the dimensions involved.



“Adverse incorporation” – when integration furthers exclusion: The concept of “adverse incorporation” conveys important information for identifying and assessing inclusive transformation scenarios with special consideration for livelihood strategies. It points out that connection to or integration in commodity or labour markets is not inclusive per se (Hickey, du Toit 2007). “Adverse incorporation” refers to practices and strategies that contribute structurally to exclusion but from a livelihood point of view are useful or necessary, as they may, for example, help actors to obtain a small degree of livelihood security by generating an urgently needed financial income, or hold the promise of long-term social security. Participation in and approval of corruption and patronage systems, and the acceptance of insecure or hazardous working conditions can be seen as “adverse incorporation”. In the long run these practices lead to systematic and thus structural disadvantages or increased vulnerability (the term *adverse incorporation* could be compared here to that of *maladaptation* in matters of ecology). Not all economic, political or social integration goes hand in hand with social inclusion. Possible scenarios and options for shaping rural transformation should be assessed on the basis of these criteria and considerations.

⁶¹ Schookner drew up a similar table to operationalize the conceptual term exclusion-inclusion in a different (socio-political) context (cf. Wennink et al.:20).

Table 5: Inclusion and exclusion operationalized		
Indicators of exclusion	Dimension	Indicators of inclusion
<ul style="list-style-type: none"> ▪ unemployment risk increases, accessible jobs and income sources become more precarious ▪ access to public services (agricultural and business advice) deteriorates ▪ access to markets deteriorates (input, sales markets, labour markets) 	Economic	<ul style="list-style-type: none"> ▪ Livelihood of household/person is secure or improves ▪ Access to natural resources, public or market goods and services is secure or improves
<ul style="list-style-type: none"> ▪ legal situation is disadvantageous ▪ formal rights have no validity ▪ exercise of formal rights is hampered or prevented ▪ political participation and interest representation is more difficult 	Political/institutional	<ul style="list-style-type: none"> ▪ legal situation provides security, protection and permits social participation ▪ rights are acknowledged and enforced, and can be exercised ▪ opportunities for political participation and interest representation are in place or improve
<ul style="list-style-type: none"> ▪ increase in negative attributes associated with cultural identity (sense of inferiority and shame / prejudice, racism) ▪ establishing and maintaining relationships is made more difficult ▪ access to and use of education and health services deteriorates or their quality declines 	Socio-cultural	<ul style="list-style-type: none"> ▪ recognition of specific cultural, ethnic or religious identities ▪ cultivation and upholding of relations of cooperation and trust in networks and organizations is possible ▪ education and health services are accessible/usable and of adequate quality
<ul style="list-style-type: none"> ▪ physical infrastructure for social participation is lacking or deteriorates ▪ health dangers increase (associated, for example, with the environment, food, accommodation, work) and hamper social participation 	Physical/ecological	<ul style="list-style-type: none"> ▪ infrastructure (e.g., transport, communication, food, water supply and disposal, living environment, work) allow for adequate social participation or improve ▪ living and working conditions promote health or improve
Source: own presentation, adapted from Schookner		

7.1.2 Ecologically sustainable versus non-sustainable transformation

As shown in the previous chapters, the changes in settlement, population and cultivation patterns brought forth by rural transformation are linked to those referring to land use and natural resource pressures. The following development trends, presented here in simplified terms, can be observed:

1. Areas with net immigration flows: intensified production in fertile and central locations with good infrastructure. Linked to greater pressure on natural resources of forest, water, soil, ecosystems depending on management (high potential locations).
2. Areas with immigration and emigration: escalation of production pressure on areas, including those with already degraded soils and shortfalls in water resources. Decline in farm sizes due to further population growth. Where possible conversion of fallow land and natural areas into usa-

ble units. Deforestation. Intensification with mostly insufficient yield increases depending on management.

3. Areas with net emigration: lessening of production pressure on less fertile and less accessible areas leading to devastation and a spread of scrubland, in some locations with the option of long-term recovery of natural resources (marginal areas with poor infrastructure).

These anticipated changes should be seen in relation to growing climate variability (cf. Chapter 5), which is likely to heighten these features. Areas that are already dry today will become more arid and moist locations, wetter. In other words, climate change will render problem sites even more challenging (cf. Müller 2008).

Given the aim of ecologically sustainable⁶² transformation,⁶³ the focus should be on all the variations mentioned: fertile locations with intensification, abandoned problem sites with poor infrastructure and degraded sites that will be subject to more pressure to intensify in the future. The latter applies to the largest regions. An increase in climate variability can be expected in all locations.

In line with the paradigm of sustainable rural transformation the following goals are envisaged:

- The (economically sensible) **ecological intensification** of farming and grazing activities in both favourable locations and problem sites. Increased productivity has the simultaneous effect of raising ecological and financial sustainability, i.e., preservation of natural resources combined with enhanced resilience in the face of mounting climate variability (adaptation strategies).
- **Limitation of problem sites** with part restoration. The concept of ecological intensification applies here too and sees intensified cropping and pasture farming as a means of soil protection and diversification. The idea is to reduce the pace of environmental migration and in as many regions as possible to achieve stable, resilient livelihoods. Activities across the board such as the Green Wall Initiative to limit devastation in the Sahel zone, massive forestry programmes, preservation and enhancement of pastures, and the promotion of revalorization of degraded soils are of the essence.

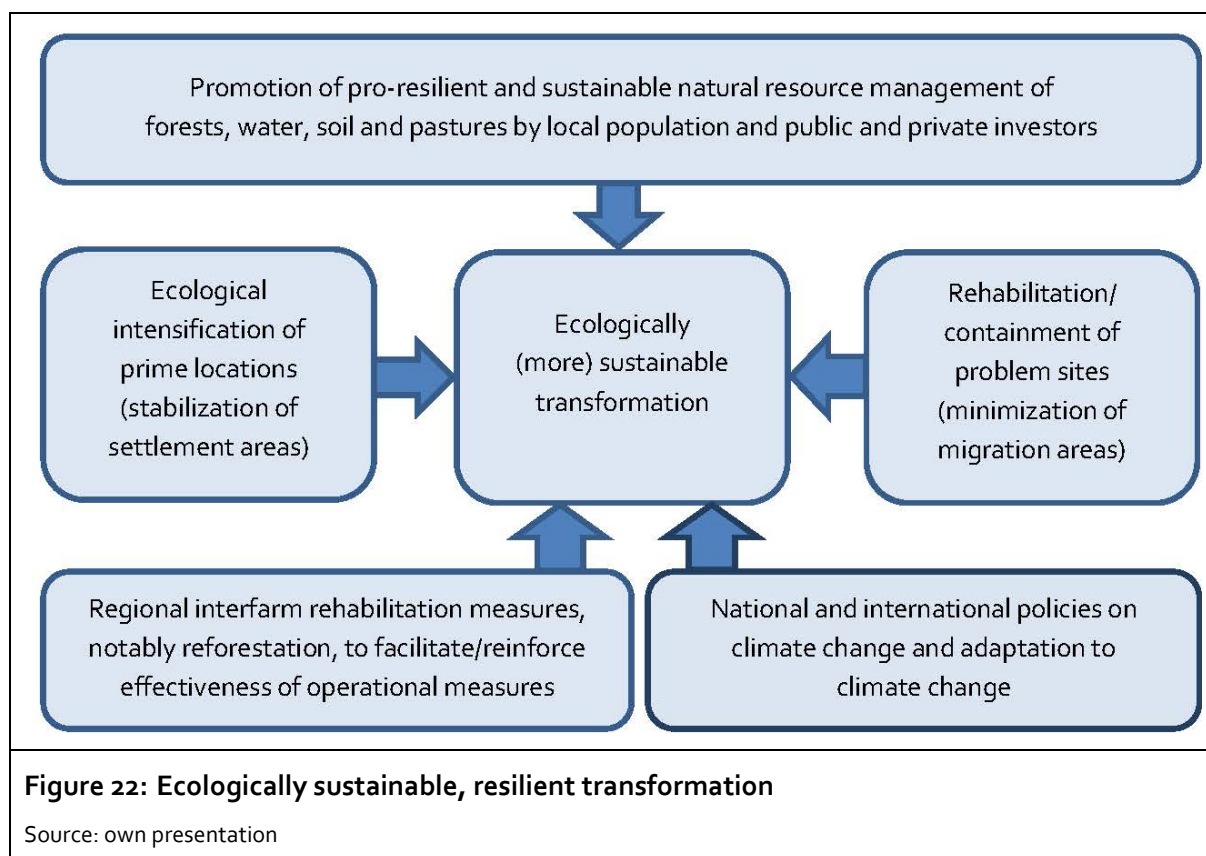
Adaptation as compensation for climate change. Systemic adaptation measures (no-regret measures) are in the spotlight here. They allow for continuation of sustainable *and* productive cultivation, regardless of how climate develops (cf. Müller 2008, Neubert et al. 2010). Examples are extended soil protection, diversification, storage capacity to offset fluctuations, insurance against losses, increased adaptive capacities and a high degree of organization. These steps lead to reduced production risks and to greater resilience in Adger's (2000 and 2005) understanding of the term. Supra-farm measures are crucial in this case, too. **Indicators for the assessment of ecologically sustainable structural change.**

It seems reasonable to refer to the SDG indicators for the evaluation of ecological sustainability (see Table 9 in the Annex). They refer almost exclusively, however, to efficiency standards (more crop per drop / more crop per unit of fertilizer) that cover the sustainability concept to a certain extent only. On the one hand, they are important because they counteract resource wastage and aim for produc-

62 The term sustainability is interpreted here as follows: "Sustainable development (SD) is a process for meeting human development goals while sustaining the ability of natural systems to continue to provide the natural resources and ecosystem services upon which the economy and society depend." Definition according to the Brundtland Report, 1987.

63 This corresponds to Agenda 2030 and the Sustainable Development Goals (SDG), as reflected in Goals 2 and 12 (sustainable agriculture), 6 (water), 13 (climate change), and 15 (forest, soil, biodiversity).

tivity increases. On the other hand, however, not sufficient since they ignore limited resource supplies and the attendant side effects.⁶⁴ Moreover, SDG indicators fail to cover alternative approaches. In other words, “how” goals are to be achieved is regarded to be of minor importance.⁶⁵



The framework of the research project calls for a twofold nexus approach: the impact of saving one resource and its effect on the use of others will be assessed, as will the nexus of ecological and social effects. Both objectives – in accordance with the SDG Agenda – have equal validity. The literature abounds with indicators for the evaluation of natural resources and their sustainable use.

- In the case of **forest**, use sustainability is measured by the degree of tree replacement with species of similar function and diversity,
- In the case of **water**, use sustainability is measured by so-called safe yields, where only the amount of water formed de novo is taken from the reservoir (river or ground water). Any change in water quality should be taken into account. In a qualitative sense, crop cultivation is only sustainable when pollution does not exceed nature’s self-purifying capacity or waste water purification is carried out prior to its return to the natural cycle,

⁶⁴ More efficient irrigation is usually an incentive to expand irrigation farm areas. Hence the water saved is not fed back into the system. Neither is consideration given to whether sufficient water supplies remain upstream to ensure water availability for subsequent users. Against this background water extraction should be strictly limited.

⁶⁵ The SDGs make no reference to sustainable pasture use or effective climate change adaptation.

- agriculturally sustained **soil** use involves the replacement of extracted nutrients (organic or anorganic) and preservation of the soil's organic substance and structure by stopping erosion, compaction, waterlogging or salination,
- sustained **pasture use** sees its carrying capacity maintained or raised. High livestock density is possible if coupled with improved pasture management (carrying capacity here is a variable indicator determined by precipitation, season or management rather than an absolute value),
- in order to guarantee a certain degree of (agro-) **biodiversity** that allows basic ecosystem functions in general and agricultural ecosystems in particular to survive despite usage, the indicator on the Living Planet Index of the World Wide Fund for Nature (WWF) is used.

The research project derives qualitative criteria from these quantitative indicators, as illustrated below in Table 6:

Table 6: Criteria for an ecologically sustainable resource use system		
Indicator of sustainable resource use	Resource	Indicator of non-sustainable resource use
<ul style="list-style-type: none"> ▪ Sustainable forestry policy in place ▪ No deforestation without adequate reforestation (incl. REDD+ projects) ▪ River beds poor in sediments (no cultivation of river banks), no large erosion clefts/gullies ▪ No burning of fields for cultivation/hunting ▪ wide practice of agroforestry or silvo-pastoral methods ▪ Interfarm activities to contain desertification or degradation of commons 	Forest	<ul style="list-style-type: none"> ▪ No explicit forestry policy ▪ Deforestation without replanting, forest /tree stock disappearance ▪ Reforestation with one-sided, water-consuming tree species ▪ Increase in river course sediments, brown river courses (river bank cultivation) ▪ No large erosion clefts or gullies ▪ Regular burning of fields ▪ No trees on agricultural areas
<ul style="list-style-type: none"> ▪ Water policy guided by water resource management ▪ Mostly rain-fed crop policy and water-saving, supplementing, efficient irrigation procedure ▪ Rivers reach the river mouth ▪ Preservation of aquatic ecosystems (wetlands, lakes) ▪ Extraction and control of safe yield ▪ Policy of go-day reservoir, water extraction licences ▪ Water user associations in place and functioning ▪ Re-use and purification of waste water for irrigation 	Water	<ul style="list-style-type: none"> ▪ Water policy/water resource management geared to supply increase not in place ▪ Agricultural policy primarily irrigation oriented ▪ High use rate of disposable water resources, drying rivers/ diminishing lake water levels ▪ Unlimited ground water usage/ lowering levels ▪ No water user groups for resources ▪ Inefficient and wasteful irrigation ▪ Disputes between people in higher-lying and lower-lying areas, and other users ▪ No waste water purification, no re-use, uncontrolled water contamination

Table 6: Criteria for an ecologically sustainable resource use system (cont.)

<ul style="list-style-type: none"> ▪ Sustainable soil policy in place ▪ Sustainable soil management in agriculture: wide crop rotation, vegetation coverage, minimal soil cultivation, fallow land, no progressive degradation, perennial, diversified crop varieties ▪ Little or no soil erosion (wind, water) ▪ Revalorization of degraded areas, e.g., Zai ▪ Planting of bushes, trees etc. as field demarcation, small-scale structures 	Soil	<ul style="list-style-type: none"> ▪ No specific soil policy ▪ Mineral (excessive) fertilizer only ▪ No replacement of soil nutrients whatsoever ▪ Visible soil degradation, lateralization ▪ close crop rotation or monocultures ▪ No fallow land, no vegetation coverage prior to planting and after harvest, annual crop varieties, deep ploughing, weeds ▪ Strong soil erosion (wind, water) ▪ No bushes, trees, large-scale structures ▪ Dominance of annual crop varieties
<ul style="list-style-type: none"> ▪ Legal consideration of pastoralist lifestyles ▪ In pastoral systems: self-sustained pastures ▪ Wide range of pasture grass species, preserved grass swards ▪ Loose tree stocks on grazing lands ▪ Improved grazing systems ▪ Rare disputes/functioning interest balance (benefit-sharing) between pastoralists and agricultural farmers 	Pasture	<ul style="list-style-type: none"> ▪ Political discrimination of pastoralists ▪ Degraded, overgrazed pastures ▪ Grazed areas, vegetation free areas ▪ Mostly one-sided grass species ▪ Invasive plant species indicating overgrazing ▪ No improvement in grazing systems ▪ High livestock density ▪ Disputes between pastoralists and agricultural farmers
<ul style="list-style-type: none"> ▪ Nature preservation laws aimed at co-resource management ▪ Visible evidence of these policies ▪ No reduction of wild animal or bird species ▪ No reduction of indigenous tree species ▪ No large conversion of ecologically valuable areas into agricultural land (e.g., no drainage), participation procedures and environmental impact assessments for large-scale conversion projects ▪ Little/sparing use of chemicals in agriculture (integrated crop management) ▪ Priority use of local farm inputs and organic fertilizer, leguminous plants ▪ Ecological intensification of agriculture 	Biodiversity	<ul style="list-style-type: none"> ▪ Separate areas aimed exclusively at protection or use ▪ Rapid conversion of ecologically valuable ecosystems into agricultural areas for cultivation ▪ Reduction of wild animal and bird species ▪ Reduction of indigenous tree species, shrubs ▪ Reduction of cultivars and breeds ▪ Reduction of farm animal species ▪ Spread of invasive plant species ▪ Uncontrolled use of chemicals, no organic fertilizer ▪ Conventional agricultural intensification (high external input)
Source: own presentation		

Observation and an empirical trend survey of these criteria for sustainable resource use allows for an appraisal of the praxis in a particular country or region and the expected trends.

7.2 Discourses and options for shaping rural transformation in Sub-Saharan Africa

7.2.1 Global discourses: four strategic options for shaping rural transformation

Rural transformation in low- and middle-income countries has attracted greater attention in the academic and development policy debate following the upsurge in agricultural prices in 2008 and the renaissance of rural and agricultural development. Almost all international organizations involved in this field have commissioned studies or concept papers on the topic (cf. the review article by Melchers, Hoeffler, Funch 2014).⁶⁶ The heart of the matter in most studies is *rural* transformation and its trajectory at different spatial levels and in different countries or regions. They occasionally contain future development scenarios (e.g., Jayne et al. 2014). Only one study (Timmer 2009) centred on the macro-economic nature of transformation. Interestingly, the authors of all the studies reached diverse conclusions on the way in which the transformation process and its design should be influenced by development policy. Two **key topics** dominate the occasionally controversial debates:

- **The small-holder question:** to what extent are small-scale farmers in a position or should they be to maintain and improve their smallholder (peasant) mode of production?⁶⁷ The question applies to pastoralists in equal measure.
- **The question of urbanization or sectoral shifts:** is transformation that follows the pattern of industrial countries (cf. Chapter 3.1) realistic in Africa today under current globalized market conditions?

These questions are interlinked. If realistic options for sectoral shifts exist, the answer to the question of small-holding will be different than if this were not the case. Taking the diverging answers to both questions into account, **four general strategic options for the design of transformation** emerge from the relevant literature:

Option A: Radical transformation based on large-scale commercial farming and the exit of small-holders from agriculture. Collier and Dercon (2009) adopt precisely this position. Referring to Brazilian achievements in commercializing agriculture, the authors conclude: "For economic development to succeed in Africa in the next 50 years, African agriculture will have to change beyond recognition. Production will have to increase significantly, but also labour productivity, requiring a vast reduction in the proportion of population engaged in agriculture and a large move out of rural areas" (p. 1). They assume that, given the logistics involved (technology, financing, international market access), African small-holders would be unable to survive in the face of competition from large-scale farming enterprises, especially since they possess no entrepreneurial talent whatsoever (p. 12). The analysis

66 Notable here are studies by Timmer (2009) with their global historical perspective, by Collier and Dercon (2009) with their questioning of small-holder competitiveness, by Dorward et al. (2009) with their plea for small-holder promotion and target group differentiation, the World Bank/cirad study by Losch, Freguin-Gresh and White (2012), who derive their recommendations for inclusive small-holder promotion from a seven-country analysis referring to Africa and Central America, studies by Wiggins et al. from ODI (2013), as well as the IFAD study based on a comparative evaluation of regional studies by Hazell and Rahman (2014), who come to the conclusion that a selective, and target-group specific integration of small-holders into commercial agriculture is both feasible and necessary. Authors from the Peasant Studies school of thought (Peters 2011, van der Ploegh 2010) adopt a more protective attitude, focusing on small-holder access to resources and the creation of local/regional alternatives to full global market integration of small-holder cultivation.

67 Transformation processes in pastoralism are not discussed explicitly in studies on rural transformation.

fails to consider the macro-economic environment. Consequently, the question of where small-holders released from the land are to find employment or an alternative means of livelihood remains unanswered.

Option B: Soft transformation based on progressive commercialization of resource-rich small-holders and the exit from farming or stabilization of the subsistence basis for most of the resource-poor farmers: this transformation strategy, which became popular under Dorward's (2009) motto of "stepping up, stepping out, hanging in", is widely shared by Hazell and Rahman (2014) in their conclusions, and also by Wiggins (2014). It assumes the competitive potential of an upper class of small-holders but denies this for the majority of resource-poor small-holder families and/or those residing in peripheral locations. Hazell and Rahman summarize their strategy as follows (p. 538): "... it is proposed to classify smallholders into three groups for the purposes of targeting small farm assistance:

- Commercial small farmers who are already successfully linked to value chains, or who could link if given a little help ...
- Small farmers in transition who have or will soon have favourable off-farm opportunities and would do better if they were either to exit farming completely or obtain most of their income from off-farm sources.
- Subsistence-oriented small farms are marginalized for a variety of reasons that are hard to change ... or being located in remote areas with limited agricultural potential. (They) frequently sell small amounts of produce at harvest to obtain some cash income ...".

While "commercial small farmers" are to be helped with access to inputs, services and markets, "small farmers in transition" will be supported in finding new opportunities in the non-farm economy. As backing for "subsistence-oriented small farms", the authors suggest "some form of social protection" (p. 540) but ultimately reach the conclusion that "it may be more cost effective to invest in improving subsistence farming rather than to spend on income transfer programmes or facilitating farm exits" (p. 551).

The necessary combination of these three support strategies is to be adapted to the respective context. Like Collier, Hazell and Rahman also tend to neglect the macro-economic environment, but recognize that limited growth in non-farm employment in poor countries could pose a "challenge" when it comes to implementing the exit strategy for "small farmers in transition" (p. 548).

Option C: Transformation primarily within agriculture itself with the inclusion of most small farmers: this option features prominently in the World Bank Study by Losch, Freguin-Gresh and White (2012) based on their analysis of livelihood systems of African small farmers. The study by Jayne et al. (2014c) (iied / IDS) likewise tends towards "broad-based agricultural growth" and the inclusion of most small-holder households (p. 19). The authors base their case on two assumptions: firstly, the majority of small-holders – at least on the domestic market – could become competitive with some state support and, secondly, industrialization accompanied by rapid growth of non-farm employment in the countries of Sub-Saharan Africa is highly unlikely. *"In SSA, family farms are often competitive in the domestic market but disadvantaged in global markets owing to factors unrelated to their size". "With some policy support, smallholder farmers can develop and ... become competitive."* And: *"Family farms have the largest capacity to absorb the rapidly growing labour force."* (p. 12, p. 18). Losch et al. also see large-scale agricultural enterprises playing a vital role, particularly where there is a need for big investments as well as in the higher echelons of the value chain to supplement

small-holder production (e.g., contract farming production). Interlinkages between small-holder production, services and non-farm income opportunities should be set up in a holistic territorial approach to the promotion of rural transformation (p. 12).

Option D: Stabilizing the autonomous small-holder mode of production rather than commodifying agricultural production: this position adopted by champions of the *Peasant Studies* school (e.g., Peters 2011) sees the growing dominance of globally active agro-business as jeopardizing the livelihoods of most small-holders. Small-holders who are neither willing nor able to submit to the conditions of the agricultural industry or supermarket chains are in danger of being driven from their resources. Advocates of this school of thought see the alternative in integrating sustainable small-holder production based on local inputs into local or regional economic cycles. They therefore consider Option A a negative scenario that culminates in exclusion, impoverishment and hunger.

Option similarities and differences: Identifying similarities in the four options outlined here is not an easy task. There is no consensus on desirable farm sizes or on the need for and possibility of targeted promotion of the agricultural labour force exit. Common to all studies is solely the prediction that without support the majority of resource-poor and market-remote producers will not be in a position to withstand the challenges of international competition, resource degradation or climate change. Regardless of their opposite values and aims – Option A and Option D share the opinion that small-holder cultivation and the demands of global oligopolic markets are diametrically opposed and thus incompatible. Options A, B and C are of one mind, however, that stronger integration of African agriculture into global markets is worth striving for or indeed inevitable. At the same time, they estimate the potential of African small-holders to achieve this integration on a spectrum from *extremely negative, partly positive* to *mostly positive*. Options A and B share the assumption that structural change will occur according to the industrial country model, that is, a sectoral and spatial shift in economic activities. Their analysis centres on the agricultural sector, however, and ignores the capacity of other sectors to absorb the labour force released from agriculture. Common to options C and D is their explicit consideration of this. Hence not only the radicalness but also the orientation of transformation processes remains controversial. This is due, on the one hand, to diverging objectives (priority of economic growth in Option A versus priority of social inclusion and poverty reduction in Options C and D) and, on the other hand, different suppositions on the potential of small-holders and off-farm employment dynamics. International development agency debates are in the main confined to Options B and C. The radical transformation according to Option A and the inclination to preserve existing structures in the sense of Option D has found little echo there, at least not in the context of Sub-Saharan Africa.

7.2.2 Option appraisal: how realistic are their assumptions and what is their socio-ecological impact?

This study assumes that decisions on shaping structural change should always refer to the specific regional or local context and be made in cooperation with the local actors concerned. Thus the Option to be selected can only be identified on site taking local specifics into account. This will not simply be a choice of one of the clear-cut “Options” described above but rather an option combination that considers location and target group specifics. Whether the economic actors, farmers, artisans or traders opt to intensify their cultivation, to look for employment in the urban centres, to seek market integration or a greater degree of autonomy remains their decision in the end as long as they maintain access to land and thus have a choice. At the same time, insights gained from this

study on Sub-Saharan Africa allow for and the objectives of “social inclusion” and “ecological sustainability” demand a general assessment of the options outlined above and their suitability for transformation processes under the generally prevailing conditions in SSA. Since most authors who advocate these options refer to developing countries in general rather than Sub-Saharan Africa in particular, it seems reasonable to examine whether their implicit assumptions genuinely apply to the situation in SSA and do justice to the objectives in question.

Assumptions: The strategies described in the options are based on various assumptions about the nature of small-holder potential and the availability of non-farm employment. When assessing the realism of the assumptions, it should be kept in mind that Sub-Saharan Africa is in many respects a heterogeneous territory, so that the relevance of assumptions made will differ from place to place and the appropriate strategies vary.⁶⁸ It is possible nonetheless to make narrative statements concerning the probability of assumptions with reference to the generalizing cross-location and cross-national insights into the trends identified for Sub-Saharan Africa in this study (cf. Chapters 5 and 6).

Assumptions *on the small-holder population and its social differentiation* are the bedrock of Option B and its strategy of differentiation. While almost all of the studies agree that socio-economic differentiation of the rural population has increased (cf. Chapter 5.6), assessments on the nature and the degree of distinction of the categories differ. Based on Dorward’s classification, authors inclined towards Option B proceed from the assumption that the various types can be clearly distinguished. The IFAD classification (cf. Chapter 5.6) and the results of the study by Losch et al., in contrast, merely distinguish between the upper 10% (“emerging small-holders”) and the lower 10-15% (the “highly vulnerable”, i.e., the old, the sick and the landless), while 75-80% of small-holders are seen as an internally blurred category or “the big middle”, all of whom to varying degrees generate a family income with a flexible mix of subsistence production, farm and non-farm market production, and wage labour. Accordingly, income composition depends on the particular opportunities available, that is, e.g., on the terms of trade between agricultural and industrial goods, as well as on the promotion policies in place. The more difficult it is to differentiate sharply between different categories among that “big middle” of Africa’s small-holders, the less useful are general cross-continental strategies that proceed from this type of classification. Target group differentiation should consequently be geared to the respective local or regional specifics under review. Since people’s ability to take advantage of economic opportunities is also the outcome of prevailing promotion and price policies, there is a danger that promotion strategies discriminated by target group will lead to a self-amplifying prediction (people classified as “hanging in” will be given little or no opportunity to access markets and services in the future and for the most part remain in the subsistence rut).

Assumptions on small-holder potential are closely linked to those referring to social differentiation. There is a consensus that farm size alone is not the conclusive factor when it comes to the competitiveness of small-holder *production*, but does impact on procurement and marketing logistics. Neither is it disputed that given the infrastructural deficits in many regions competitiveness on external markets is heavily dependent on location. There is likewise strong agreement that small-holders with diversified livelihood systems are at a competitive disadvantage due to their inability to take more risks or avail of specialization advantages. The (frequently implicit) assumptions on the possibility of mobilizing unexploited small-holder potential by means of market incentives and access to

⁶⁸ Statements on valid strategies for rural transformation in SSA cannot therefore be expected from this study but only taking into account the empirical research findings in the three case study countries.

services, however, are diverse. Although it is stressed on all sides that the underused potential of rural SSA stems from unattractive producer prices and agricultural policy neglect, Options A and B apparently proceed from the assumption that the consequences for small-holders cannot be compensated by more appealing producer prices or enhanced market and resource access. Option C, on the other hand, takes it as a given that with the right promotion most small-holders – in various site-specific ways – could become competitive in national and even international markets, and eventually be in a position to use resources sustainably (cf. also Rauch 2006 and 2013).

Options A and B ***take for granted that the number of non-farm opportunities to make a living will grow*** to such an extent that not only will the rising labour force produced by demographic growth be absorbed by these sectors but also all those whose “stepping out” from agriculture is to be either accepted (Option A) or promoted (Option B). Despite the economic boom in the last ten years there is little evidence that this assumption on employment progression in African cities corresponds to reality (cf. Chapter 5.1). The service sector is in the process of expanding but refers for the most part to income-generating activities that are less productive, poorly paid and often precarious. As a rule, they complement rather than replace on-farm income and subsistence production.

Objectives: The options described above will now be assessed for their ability to meet the requirements of a socially inclusive and ecologically sustainable transformation design. Moreover, the assessment takes account of competitiveness, i.e., the contribution to economic growth, as an objective, the fulfilment of which is indispensable to ONE WORLD, NO HUNGER.

Assessment of the options in terms of social inclusion: Option A ignores the aspect of social inclusion. It recommends the release of small-holders from agriculture but fails to address the question of income-generating opportunities outside the farming sector. This may be based on the tacit (market-liberal) assumption that a massive influx of job-seekers will reduce wage levels to the extent that African production sites can compete with South Asian low-income countries. Industrial mass production would then be moved to Africa. Option B aspires to social inclusion with support measures targeting all small-holder groups. Despite the goal of actively promoting non-farm income opportunities for the “stepping-out” group, the weakness of this option is its perception of non-farm labour markets and their capacity for absorption as “a challenge to be met”. Social inclusion takes centre stage in the strategic considerations of Options C and D. They base their plea to uphold and strengthen small-holder cultivation not least on its function as a social holding centre, bearing in mind the absence of dynamic employment development in other sectors. Given growing worldwide demand and the prevailing ecological challenges, they see both the need for and the potential of inclusive small-holder promotion. While advocates of Option C see an opportunity for resource-poor small-holders to be competitive with a range of cash crop varieties even on international markets, e.g., through contract farming based on producer organizations, proponents of Option D fail to see this as a desirable prospect and instead focus exclusively on making progress in local, regional and national markets.

Assessment of the options in terms of ecological sustainability: None of the four options addresses the topic of ecological sustainability explicitly. This is because ecological sustainability and the attendant issue of resource use technology does not feature prominently in transformation discourse. Options A and D are easily assessed. Option A sets its sails on the growth of large-scale agricultural enterprises based on modern agricultural technology, i.e., on farming with substantial external inputs (mineral fertilizer, pesticides, fuel) and thus high carbon dioxide emissions and water require-

ments. Option D, on the other hand, relies on small-holder autonomy, that is, on ecological farming methods suited to the location, dispensing for the most part with external inputs. This could also mean low yields and thus an unsatisfactory response to growing demand. The intensification procedure envisaged in Option B for advanced farmers and in Option C for all small-holders is feasible with the input-intensive techniques of the Green Revolution as well as with the ecologically more sustainable method of low external input techniques. Under prevailing conditions (including climate change), however, the sophisticated management approach to ecological intensification seems to be ecologically more sustainable and sufficiently productive at the same time. It requires, however, considerable knowledge, organization and agro-ecological diversification. In this approach preservation of soil and water resources is treated with the same degree of earnestness as improved productivity. In the context of ecological intensification, soil takes the limelight in terms of both climate change adaptation and reduction of CO₂ emissions (mitigation: soil as a carbon sink). Options B and C are in principle suitable for these production models.

Assessment of the options in terms of competitiveness and economic growth: Although economic growth and competitiveness are not explicitly marked as an objective in the frame of the research project in which this study is integrated or in the debate on structural change, the objective of all discourse on this type of change in poor countries is enhanced material welfare and basic needs satisfaction (this refers here to the embedding of the research project in the Special Initiative ONE WORLD, NO HUNGER). Without increased production and more income, that is, competitiveness and economic growth, this “WORLD” will never materialize in poor countries. It therefore makes sense to examine the options in terms of potential growth effects. Option A has clearly made growth its mission and is prepared to sacrifice social inclusion and ecological sustainability for rapid production increases. Option B is undoubtedly more interested in growth than Option C and embarks on a reduction of small-holder households in favour of large farms combined with greater productivity and a higher degree of specialization. Option C, in contrast, banks on rising production through the existing or swelling labour force, i.e., first and foremost on increasing *area* productivity. It should be remarked here that from an economic point of view vulnerability reduction measures for marginalized subsistence farmers also have a growth effect: reducing the production risk from 25 to 5%, for example, leads to an increase in area productivity and thus in the overall production (multi-year average) of approx. 27%. This falls in the domain of food security through economic growth, i.e., “Pro-Poor Growth”, rather than redistribution as a social security measure.

Table 7 in the following gives an overview of the principal assumptions, characteristics and criteria of the strategic options described for rural transformation in a comparison (as a synopsis).

Table 7: Overview of Options for Rural Transformation

	Option A: Radical transformation based on large-scale farming and release of small-holders	Option B: Soft transformation: commercialization of emergent farmers; exit from agriculture or stabilization of subsistence production for most small-holders	Option C: Structural transformation within agriculture with the majority of small-holders	Option D: Stabilization of autonomous small-holder (peasant) production instead of commodification of agricultural production
Proponent	Collier, Dercon 2009	Hazell, Rahman 2014 Wiggins 2014	Losch, Freguin-Gresh, White 2012 Jayne et al. 2014	'Peasant Studies': Peters 2011 Van derPloegh 2010
Characteristics	Priority of large-scale farming (example: Brazil)	Distinction between <ul style="list-style-type: none"> commercial small farmers: promotion of „stepping-up“ small farmers in transition: promotion of “stepping-out” Subsistence-oriented small farmers: stabilization of subsistence production 	Broad-based agricultural growth that includes the majority of small-holders; complementary role of large farms (contract farming) and promotion of non-farm sectors ('territorial approach')	Embedding of autonomous, sustainable farming with local inputs for local/regional market production in local/regional economic cycles
Assumptions	<ul style="list-style-type: none"> competitive inferiority and low market potential of small-holders implicit assumption of labour market ability to absorb released agricultural LF 	<ul style="list-style-type: none"> Clear differentiation of small-holder potentials; majority without market potential Implicit assumption of possibility to create non-farm employment for “step-outs” 	<ul style="list-style-type: none"> gradual variable differentiation of small-holder potentials; majority have potential to intensify if promoted persistent low capacity of non-farm labour markets to absorb 	<ul style="list-style-type: none"> small-holder potential for sustainable food security, but not for requirements of international agrobusiness normative preference for autonomous small-holder production methods and ways of life
Impacts and target aims	<ul style="list-style-type: none"> Social inclusion: disregarded Ecological sustainability: not discussed; improbable given farming with high external input Growth: top priority 	<ul style="list-style-type: none"> Social inclusion: pursued with target-specific measures for all groups; but not guaranteed due to unsolved issue of non-farm livelihood opportunities Ecological sustainability: not discussed, but possible Growth: stronger growth orientation as a trade-off between increasing labour productivity and social exclusion 	<ul style="list-style-type: none"> Social inclusion: very high priority; inclusive promotion of farming potentials; parallel promotion of non-farm options Ecological sustainability: not discussed explicitly, but trend towards low external input agriculture with ecological intensification Growth: primarily by raising area productivity and reducing risk of yield loss 	<ul style="list-style-type: none"> Social inclusion: very high priority; small-holder protection from excluding impact of markets and land grabbing Ecological sustainability: explicitly pursued. Trend towards low external input agriculture Growth: not discussed

Source: own presentation

Summary

- **Option A** is a radical form of structural change exclusively growth-oriented, which fails to take account of social inclusion and ecological sustainability. It is based on the implicit assumption (which does not apply to any country in SSA) of a rapid growth in productive non-farm employment opportunities and on highly negative assumptions referring to small-holder competitiveness and the potential to expand.
- **Option B** represents a softer form of transformation that sees moderate growth shaped by social inclusion, where those small-holders who lack agricultural potential will be supported either in their subsistence efforts or in managing their release from the farm sector. It is also based on the assumption of above-average growth in non-farm income and employment opportunities, and a somewhat pessimistic appraisal of the potential of most small-holders to develop.
- **Option C** is a “Pro-Poor Growth” strategy based on the assumption that most small-holders dispose of a hitherto neglected potential to develop, the mobilization of which coincides with a growing demand for agricultural goods. It also assumes, at the same time, that outside the agricultural sector in SSA, the expansion of secure and productive income and employment opportunities is highly limited (and way behind the increase in the number of people of working age). With reference to food security it gives priority to social inclusion and accepts possible trade-offs with regard to growth, albeit without ignoring the importance of economic growth.
- **Option D** prioritizes social inclusion and ecological sustainability over growth goals and furthermore rates small-holder autonomy highly. Unlike Option C, it assumes that this position is incompatible with integration into international value chains.

7.3 Conclusions: hypotheses on a socially inclusive and ecologically sustainable shaping of rural transformation in Sub-Saharan Africa

Chapters 5 and 6 analyse the pattern of rural transformation in SSA based on macro-analyses and individual case studies, comparing them with patterns in other world regions that serve as examples for successful transformation processes. Chapter 7.1 works out a normative framework for a socially inclusive and ecologically sustainable concept. As a discursive framework, Chapter 7.2 outlines and assesses current debates on various political options for shaping transformation in Sub-Saharan Africa. Based on these analyses and against the backdrop of the frameworks described, Chapter 7.3 develops strategic statements on socially inclusive and ecologically sustainable rural transformation in SSA. They are presented in the form of hypotheses, which are based on macro-analyses and consequently of a general nature. They call for differentiation and expression in more practical terms, which is the expected outcome of the country case studies in the research project. They can also serve as macro-strategic orientation guidelines for local decision-making processes on how transformation could proceed.

The following provisional hypotheses on socially inclusive and ecologically sustainable transformation processes are derived from the findings of this study:

1. In order to prevent social exclusion in the rural areas of Sub-Saharan African countries, promotion of **any** form of transformation leading to a **massive release of the agricultural labour force** should be avoided as long as or wherever there is no dynamic development in stable non-farm productive employment and income opportunities.
2. If the global demand for agricultural goods coupled with high agricultural price levels continues to increase, it will enlarge the economic room to manoeuvre socially inclusive expansion and intensify agricultural production. Even locations and farms that have not been competitive up to now could become attractive. Hence **rural transformation** in SSA in a situation of increased global and domestic market demand is possible **within the rural areas and without a vast sectoral shift**.
3. Where untapped small-holder potential for development exists (i.e., in most locations and most livelihood systems), it should be mobilized for ecologically more sustainable intensification through the inclusive broad-based **promotion of small farmers, differentiated by target group and location, and the fostering of their innovative capacities and market integration**.
4. Depending on the location and target group, these **leeways for intensification** could either mean enhanced integration in global value chains, a more productive and ecologically more sustainable methods of cultivating staples for local and national markets or – in the face of growing climate variability – production risk reduction.
5. The need for small-scale farmers to gain access to knowledge of innovative practices, as well as to services and markets does not imply that promotion should be confined to them. The promotion of **medium- or large-scale farms** in production and value chain areas that are rarely if ever within reach of small-holders (e.g., capital-intensive production domains, technically ambitious products, marketing, processing) is by no means incompatible with socially inclusive transformation, and at times even beneficial.
6. At locations with a constant increase in rural population figures and limited non-farm alternatives, as many people as possible should be enabled to (at least partially) earn a living from the land or to supplement their income. Crucial here is to raise land productivity with labour-intensive **technologies** adapted to the environment. To cope with labour bottlenecks, on the other hand, context-tailored mechanization may be required as well.
7. Where there is evidence of investors buying up agricultural goods or the land to produce them, it seems reasonable to promote forms of **contract farming** and thus facilitate small-holder access to means of production, innovations, services and markets. Ensuring a maximum of small-holder inclusion demands their **organization** and the negotiation of fair, reliable and unconstrained market access conditions. Arrangements with state or non-profit actors as mediators can prove useful in this case. Vital for enhanced food security and the prevention of social exclusion in terms of external investors is the continued guaranteed **access to land and natural resources** for small-holders and pastoralists.
8. Where the production of **staples** is a key source of income for small-holders but strong price fluctuations destroy any incentive to intensify and produce a surplus, **state measures to stabilize the markets** are the prerequisite for heightened productivity that is both socially inclusive and ecologically sustained. Here a balanced price policy is crucial to lessening the price risk for producers, on the one hand, and avoiding incentives towards one-sided mono-cropping (e.g., maize monoculture), on the other.

9. Wherever a broad-based increase in agricultural incomes occurs, where locations are advantageous to the local processing of farm raw materials or where service markets emerge, **non-farm employment** should be promoted. This can widen the options of the rural population and render their diversified multi-local livelihoods more resilient.
10. Where more and more dependent people in disadvantaged agricultural locations are poorly looked after or left to their own devices, e.g., when the younger generation of working age pursues more permanent prospects in the urban areas, new locally adapted **institutionalized forms of broad-based social care** (social services, transfers, insurances) need to be introduced.
11. The approaches outlined in points 1 to 10 refer to rural transformation based on the use of new market opportunities and small-holder potential by means of an ecologically sustainable and socially inclusive intensification of agricultural activities, including upstream and downstream stages. Such transformation processes within the productive sphere must be **embedded in a comprehensive regional development strategy for the rural areas**. Key here is to enhance the social and communicative infrastructure (health and education), to establish an innovative milieu (innovative centres that work out tailored solutions in a participatory manner), and set up democratic, transparent and accountable governance structures coupled with a local-based rural civil society.
12. Most of the above statements are also valid for **pastoral livelihood systems** and their transfer to pastoral farming systems. They, too, dispose of unexploited leeway for intensification. This should be identified in a participatory manner and carefully promoted in ways suitable to the location and mindful of culturally accepted pastoral practices. Upholding traditional access to natural resources should be combined here with greater access to markets for livestock and livestock products, infrastructure and public services, and finally, with the search for alternative sources of income.

The majority of these strategy suggestions deal with “if-then” or “where evidence of” statements and call for further differentiation. They can be regarded as a starting point for the case study analyses in the research project.

Conclusion: The analysis of rural transformation in Sub-Saharan Africa presented here suggests that socially inclusive and ecologically sustained rural transformation under the prevailing framework conditions of a global (open) economy is best achieved by ecologically sustained intensification of farm production within the rural areas, using the unexploited potential of the small-holders concerned and their resources. This concept of transformation comes closest to proposals made by the authors of Option C (see Chapter 7.2). It should be taken into account, nonetheless, that conditions from one country to another vary. In other words, finer distinctions and a possible querying of these general hypotheses can be expected from the empirical analysis of the three countries under review in the research project.

References

- Adger, W.N. (2000): Social and ecological resilience: are they related? *Progress in Human Geography*, 24(3): 347-364.
- ; Arnell, N.W.; Tompkins, E.L. (2005): Successful adaptation to climate change across scales. *Global Environmental Change* 15(2): 77-86.
- Aklilu, Y.; Catley, A. (2010): MIND THE GAP Commercialization, Livelihoods and Wealth Disparity in Pastoralist Areas of Ethiopia. Feinstein International Centre/Tufts University.
- Alber, E. (2014): Soziale Elternschaft im Wandel: Kindheit, Verwandtschaft und Zugehörigkeit in Westafrika. Berlin: Reimer.
- ; Häberlein, T.; Martin, J. (2012): Verwandtschaft in Afrika: Transformationsprozesse im 20. Jahrhundert. In: Bierschenk, T.; Spies, E. (eds): 50 Jahre Unabhängigkeit in Afrika: Kontinuitäten, Brüche, Perspektiven. Köln: Köppe: 141-170.
- Arrey Mbongaya, I. (2008): Privatisation: a burden or strategy for Sub-Saharan Africa? Focusing on access to water in Wovia Village, Cameroon. Limbe, Cameroon: African Centre for Community and Development.
- Asche, H. (2012). Die Wirtschaft Afrikas seit 1960. In: Bierschenk, T.; Spies, E. (eds): 50 Jahre Unabhängigkeit in Afrika: Kontinuitäten, Brüche, Perspektiven. Köln: Köppe: 371-412.
- AU (African Union) (2010): Policy framework for pastoralism in Africa : securing, protecting and improving the lives, livelihoods and rights of pastoralist communities. Addis Ababa: African Union, Department of Rural Economy and Agriculture.
- Ayana Aga, G.; Martinez, P.; Soledad, M. (2014): International Remittances and Financial Inclusion in Sub-Saharan Africa. Working Paper 6991. World Bank, Development Research Group Finance and Private Sector Development Team.
- Badiane, O.; Makombe, T. (eds) (2014): Beyond a Middle Income Africa: Transforming African Economies for Sustained Growth with Rising Employment and Incomes. ReSAKSS Annual Trends and Outlook Report 2014. Washington, D.C.: IFPRI.
- Badiane, O.; McMillan, M. (2014): Economic Transformation in Africa: Patterns, Drivers, and Implications for Future Growth Strategies. In: Badiane, O.; Makombe, T. (2014): Beyond a Middle Income Africa: Transforming African Economies for Sustained Growth with Rising Employment and Incomes. ReSAKSS Annual Trends and Outlook Report 2014. Washington, D.C.: IFPRI.
- Beall, J.; Pirón, L.-H. (n.d.): DFID Social Exclusion Review Draft Outline. London: Overseas Development Institute.
- Beauchemin, C.; Bocquier, P. (2004): Migration and urbanisation in francophone West Africa: an overview of the recent empirical evidence. *Urban Studies* 41(11): 2245-2272.
- Bebbington, A.J.; Batterbury, S.P.J. (2001): Transnational Livelihoods and Landscapes: Political Ecologies of Globalization. *Cultural Geographies* 8(4): 369-380.
- Beckmann, G.; Neubert, S.; Fleig, A.K. (2015): Armutswirksame Strategien und Institutionen ländlicher Entwicklung: Metaanalysen des Seminars für Ländliche Entwicklung (SLE). Humboldt Universität zu Berlin (ed.). Berlin: SLE.
- Behnke, R.H.; Kerven, C. (2013): Counting the costs: replacing pastoralism with irrigated agriculture in the Awash valley, north-eastern Ethiopia. IIED Climate Change Working Paper No. 4. Behnke, R.H.; Scoones, I.; Kerven, C. (eds) (1993): Range ecology at disequilibrium: new models of natural variability and pastoral adaptation in African savannas. London: Overseas Development Institute.
- Berdegúe, J.A.; Rosada, T.; Bebbington, A.J. (2014): The Rural Transformation. In: Currie-Alder, B.; Kanbur, R.; Malone, D.M.; Medhora, R. (eds): International Development. Oxford University Press: 463-478.
- Berthélemy, J.-C. (ed.). (2004): Privatisation in Sub-Saharan Africa: where do we stand? Paris: OECD.
- Bierschenk, T.; Olivier de Sardan, J.-P. (eds) (2014): States at work: dynamics of African bureaucracies. Leiden ; Boston: Brill.
- Bierschenk, T.; Spies, E. (eds) (2012): 50 Jahre Unabhängigkeit in Afrika: Kontinuitäten, Brüche, Perspektiven. Köln: Köppe.
- Binswanger-Mkhize, H.P. (2012): The Role of Agriculture in Structural Transformation. IFPRI / WCAO: 10-11.

- Black, R.; Crush J.; Perberdy S.; Ammassari, S. (2006): Migration and development in Africa: An overview. Cape Town, South Africa: Idasa.
- BMZ (2015): Eine Welt ohne Hunger ist möglich. Was tut die deutsche Entwicklungspolitik. Bonn, Berlin: BMZ.
- Boko, M.; Niang, I.; Nyong, A.; Vogel, C.; Githeko, A.; Medany, M.; Yanda, P. (n.d.): Africa. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, UK: Cambridge University Press.
- Bouquet, C. (2003): Le poids des étrangers en Côte d'Ivoire / The importance of foreigners in Ivory Coast. *Annales de Géographie* 2003, t. 112, n°630: 115-145.
- Braun, J. von (2008): Rising World Food Prices: Impact on the Poor. *Rural* 21, 42(3): 19-21.
- Bryceson, D. (2002): Multiplex livelihoods in rural Africa: recasting the terms and conditions of gainful employment. *The Journal of Modern African Studies* 3/2002.
- Catley, A.; Lind, J.; Scoones, I. (2013): Pastoralism and development in Africa: dynamic change at the margins. Routledge.
- Chamberlin, J.; Jayne, T.S.; Headey, D. (2014): Scarcity amidst abundance? Reassessing the potential for cropland expansion in Africa. *Food Policy* 48: 51-65.
- Chambers, R. (2014): Rural development: Putting the last first. London: Routledge.
- Chase, R.; Sherburne-Benz, L. (2008): Household Effects of African Community Initiatives: Evaluating the Impact of the Zambia Social Fund. Washington, D.C.: World Bank.
- Chenery, H.B. (1960): Patterns of Industrial Growth. *American Economic Review* 50(2): 624-654.
- Collier, P.; Dercon, S. (2009): African agriculture in 50 years: smallholders in a rapidly changing world. Proceedings of a technical meeting of experts. Rome: FAO.
- Cotula, L.; Oya, C.; Codjoe, E.A.; Eid, A.; Kakraba-Ampeh, M.; Keeley, J.; Rizzo, M. (2014): Testing Claims about Large Land Deals in Africa: Findings from a Multi-Country Study. *The Journal of Development Studies* 50(7): 903-925.
- Curzon, G.; Kantamaneni, B.D.; Bartlett, J.R.; Bridges, P.K. (1976): Transmitter precursors and metabolites in human ventricular cerebrospinal fluid. *Journal of Neurochemistry* 26(3): 613-615.
- Davies, J.; Niamir-Fuller, M.; Kerven, C.; Bauer, K. (2010): Extensive livestock production in transition: the future of sustainable pastoralism. In: Steinfeld, H.; Mooney, H.; Schneider, F.; Neville, L.E. (eds): *Livestock in a Changing Landscape. Volume 1: Drivers, Consequences, and Responses*. (p. Island Press): 285-308.
- De Haan, A. (2011a): Rescuing exclusion from the poverty debate: group disparities and social transformation in India. Working Paper 517. International Institute of Social Studies of Erasmus University (ISS): 1-22
- (2011b): Social exclusion and the road not taken: an insider account of conceptual travel within development practice. Manchester: Chronic Poverty Research Centre.
- (ed.) (2000): *Migration and livelihoods: case studies in Bangladesh, Ethiopia and Mali*. Brighton: Institut of Development Studies.
- De Janvry, A.; Nakagawa, H.; Sadoulet, E. (2009): Pro-poor targeting and electoral rewards in decentralizing to communities the provision of local public goods in rural Zambia. University of California, Berkeley.
- Devereux, S. (2006): Vulnerable livelihoods in Somali Region, Ethiopia. IDS Research ReportNo. 57. Sussex, UK: Overseas Development Institute.
- Dick, E.; Schmidt-Kallert, E. (2011): Understanding the (Mega-)Urban from the Rural: Non-Permanent Migration and Multi-Locational Households. *disP – The Planning Review* 47(187): 24-36.
- Doevenspeck, M. (2011): The Thin Line Between Choice and Flight: Environment and Migration in Rural Benin: Environment and migration in Benin. International Migration. Oxford: Blackwell Publishing Ltd: 50-68
- Dorlöchter-Sulser, S. (2014): Wandel von Livelihood-Systemen im Spannungsfeld von Struktur und Handeln: eine historisch angelegte Livelihood-Analyse von 1960 bis 2010 am Beispiel der Region Dosso, Niger. Berlin: wvb.
- Dorward, A.; Anderson, S.; Nava, Y.; Pattison, J.; Paz, R.; Rushton, J.; Sanchez, V. (2009): Hanging In, Stepping Up, Stepping Out: Livelihood Aspirations and Strategies of the Poor. <https://eprints.soas.ac.uk/6163/1/HangingInDIP.pdf> (letzter Aufruf: 20.11.2015)
- Döver, M.; Kappel, R. (2015): Hürden für die Industrialisierung in Africa. *GIGA Focus* 7/2015: 1-8.

- Easterly, W. (2008): Design and Reform of Institutions in LDCs and Transition Economies. *Institutions: Top Down or Bottom Up?* American Economic Review 98(2): 95-99.
- Eberlei, W. (ed.) (2014): *Zivilgesellschaft in Subsahara Afrika*. Wiesbaden: Springer Fachmedien.
- FAO (2011): *The State of Food and Agriculture. Women in Agriculture. Closing the Gender Gap for Development*. Rome: FAO
- (2014): *The State of Food and Agriculture 2015. Innovation in Family Farming*. Rome.
- ; IFAD (2008): *Water and the Rural Poor*. Rome: FAO
- ; OAA (eds) (2011): *The state of the world's land and water resources for food and agriculture: managing systems at risk*. Abingdon: Earthscan.
- Freguin-Gresh, S.; White, E.; Losch, B. (2012): *Rural Transformation and Structural Change: insights from Developing Countries facing Globalization*. In: *Producing and reproducing farming systems. New modes of organisation for sustainable food systems of tomorrow*. 10th European IFSA Symposium, Aarhus, Denmark, 1-4 July 2012. International Farming Systems Association.
- Galvin, K.A. (2009): *Transitions: Pastoralists Living with Change*. *Annual Review of Anthropology* 38(1): 185-198.
- Geschiere, P.; Gugler, J. (1998): *Introduction: The Urban-Rural Connection: Changing Issues of Belonging and Identification*. *Africa: Journal of the International African Institute*, 68(3): 309.
- Gibson, M.A.; Gurmu, E. (2012): *Rural to urban migration is an Unforeseen Impact of Development Intervention in Ethiopia*. *PLoS ONE* 7(11): e48708.
- GIZ (2012): *Territoriale Entwicklung im ländlichen Raum*. Bonn: GIZ.
- (2014): *Unterstützung eines sozial verträglichen Strukturwandels der Landwirtschaft und des Ländlichen Raums. Hintergrundpapier der Sektorvorhaben Entwicklung ländlicher Räume und Agrarpolitik und Ernährungssicherung*. Bonn: GIZ.
- (n.d.): *Entwicklung ländlicher Räume (GIZ Broschüre)*. Bonn: GIZ: 6.
- Godoy, J.; Tortora, B.; Sonnenschein, J.; Kendall, J. (2012): *Payments and Money Transfer Behavior of Sub-Saharan Africans*. Study commissioned by the Bill and Melinda Gates Foundation.
- Golaz, V. (2012): *Africa, a young but ageing continent*. *Population and Societies* (Jul-Aug, 491): 1-4.
- Gonin, A.; Gautier, D. (2015): *Shift in herders' territorialities from regional to local scale: the political ecology of pastoral herding in western Burkina Faso*. *Pastoralism* 5(1): 1-12.
- Grawert, E. (1998): *Making a Living in Rural Sudan: production of women, labour migration of men, and policies for peasants' needs*. London: Macmillan.
- Haggblade, S.; Hazell, P. (eds) (2010): *Successes in African agriculture: lessons for the future*. Baltimore: Johns Hopkins University Press.
- Haggblade, S.; Hazell, P.; Reardon, T. (2007): *Transforming the rural nonfarm economy: Opportunities and threats in the developing world*. Washington, D.C.: Intl Food Policy Res Inst.
- (2010): *The Rural Non-farm Economy: Prospects for Growth and Poverty Reduction*. *World Development* 38(10): 1429-1441.
- Hazell, P.; Rahman, A. (eds) (2014): *New Directions for Smallholder Agriculture*. Oxford University Press.
- Hazell, P.; Wood, S. (2008): *Drivers of change in global agriculture*. *Philosophical Transactions of the Royal Society B: Biological Sciences* 363(1491): 495-515.
- Heidhues, F.; Obare, G. (2011): *Lessons from Structural Adjustment Programmes and their Effects in Africa*: 55-64.
- Herrmann, M.; Berlin-Institut für Bevölkerung und Entwicklung; Stiftung Schloss Ettersburg (eds) (2015): *Consequential omissions: how demography shapes development – lessons from the MDGs for the SDGs*. Berlin: Berlin-Institut für Bevölkerung und Entwicklung.
- Hickey, S.; du Toit, A. (2007): *Adverse Incorporation, Social Exclusion and Chronic Poverty*. *Chronic Poverty Research Centre Working Paper No. 81*.
- Huang, J.; Huangang, Q.; Wang, X.; International Institute for Environment and Development (2012): *Small-scale farmers in China in the face of modernisation and globalisation*. London: International Institute for Environment and Development.
- Iliffe, J. (1997): *Geschichte Afrikas* (2., brosch. Aufl.). München: Beck.

- International Organisation for Migration (n.d.): Migration and development within the South: New evidence from African, Caribbean and Pacific countries 46. Geneva.
- International Fund for Agricultural Development (2010): Rural poverty report 2011 new realities, new challenges: new opportunities for tomorrow's generation. Rome, Italy: IFAD.
- International Labour Office (ed.) (2013): Global employment trends 2013. Recovering from a second jobs dip. Geneva: Int. Labour Off.
- Jayne, T.S.; Chamberlin, J.; Headey, D.D. (2014a): Land pressures, the evolution of farming systems, and development strategies in Africa: A synthesis. *Food Policy* 48: 1-17.
- Jayne, T.S.; Meyer, F.; Traub, L.N. (2014b): Africa's Evolving Food Systems: Drivers of change and the scope for influencing them. IIED Working Paper.
- Jones, A.; Breuning-Madsen, H.; Brossard, M.; Dampha, A.; Deckers, J.; Dewitte, O.; Zougmore, R. (2013): Soil atlas of Africa. Luxembourg: European Commission.
- Jones, P.G.; Thornton, P.K. (2009): Croppers to livestock keepers: livelihood transitions to 2050 in Africa due to climate change. *Environmental Science & Policy* 12(4): 427-437.
- Kabeer, N. (2000): Social Exclusion, Poverty and Discrimination. Towards an Analytical Framework. *IDS Bulletin* 31(4): 83-97.
- Kappel, R. (ed.) (2003): Klein- und Mittelunternehmen in Entwicklungsländern: die Herausforderungen der Globalisierung. Hamburg: DÜI.
- Khan, S. (2012): Topic Guide on Social Exclusion. GSDRC Governance and Social Development Resource Centre.
- Kimani, M. (2012): Africa Renewal: Special Edition on Women. Africa-Renewal-Womens-Issue-2012-en.pdf. UN.
- Konseiga, A. (2005): New Patterns of Migration in West Africa. *Wiener Zeitschrift für kritische Afrikastudien* 5(8): 23-46.
- Kormawa, P.; Afeikhen, J. (2014): Renewing Industrialization Strategies in Africa. In: Badiane, O.; Makombe, T. (2014): Beyond a Middle Income Africa: Transforming African Economies for Sustained Growth with Rising Employment and Incomes. ReSAKSS Annual Trends and Outlook Report 2014. Washington, D.C.: IFPRI.
- Kuznets, S. (1955): Economic Growth and Income Inequality (45)1: 1-22.
- Kwapong, M.S.N.A. (2012): Making rural services work for the poor: The role of Ugandas service reforms in marketing and agricultural extension. Humboldt-Universität zu Berlin.
- Lewis, W.A. (1954): Economic Development with Unlimited Supplies of Labor. *The Manchester School* 22 (2): 139-191.
- Little, P.; McPeak, J. (2014): Pastoralism and resilience in Africa south of the Sahara. Washington, D.C.: IFPRI.
- Livingston, G.; Schonberger, S.; Delaney, S. (2014): Right place, right time. In: Hazell, P.B.R.; Rahman, A. (eds): *New Directions for Smallholder Agriculture*. Oxford University Press: 36-68.
- Lohnert, B.; Steinbrink, M. (2005): Rural and Urban Livelihoods: A Translocal Perspective in a South African Context. *South African Geographical Journal* 87(2): 95-103.
- Loimeier, R.; Neubert, D.; Weissköppel, C. (eds) (2005): *Globalisierung im lokalen Kontext: Perspektiven und Konzepte von Handeln in Afrika*. Münster: Lit.
- Losch, B. (2012): Structural transformation and rural change revisited: challenges for late developing countries in a globalizing world. Washington, DC: World Bank.
- (2013): Lasting but changing rural trends. In: *A New Emerging Rural World*. (Spread 2).
- ; Magrin, G.; Imbernon, J. (eds) (2013): *A new emerging rural world. An overview of rural change in Africa. Atlas for the NEPAD Rural Futures programme*. Montpellier: CIRAD.
- McMillan, M. (2012): Global Patterns of Structural Change (2): 3-4. IFPRI/WCAO.
- Melchers, I.; Funch, E.; Höffler, H. (2014): Differenzierter Blick, Entwicklung und Zusammenarbeit (6): 250.
- Menzel, U. (1986): Die ostasiatischen Schwellenländer. Testfälle für die entwicklungstheoretische Diskussion. In: *Europas Entwicklung und die Dritte Welt: eine Bestandsaufnahme*. Frankfurt a. M.: Suhrkamp: 138-171.
- ; Senghaas, D. (1986): *Europas Entwicklung und die Dritte Welt: eine Bestandsaufnahme* (1. Aufl). Frankfurt am Main: Suhrkamp.

- Meyns, P. (2014): Contested Terrain–Zivilgesellschaft in der nachkolonialen Entwicklung Sambias. In: Eberlei, W. (ed.): *Zivilgesellschaft in Subsahara Afrika*. Wiesbaden: Springer: 35-71.
- Moritz, M. (2008): Competing Paradigms in Pastoral Development? A Perspective from the Far North of Cameroon. *World Development* 36(11): 2243-2254.
- (2012): Pastoral intensification in West Africa: implications for sustainability: Pastoral intensification in West Africa. *Journal of the Royal Anthropological Institute* 18(2): 418-438.
- Moumouni, I.; Tovignan, S.D.; Baco, M.N.; Nouatin, G. (2012): Pitfalls of Projects-Driven Institutional Development in Developing Countries: The Case of Privatisation of Agricultural Services in Benin. German Association of Agricultural Economists (GEWISOLA), 52nd Annual Conference, Stuttgart, Germany, September 26-28, 2012.
- Moumouni, I.; Vodouhe, S.D.; Streiffeler, F. (2009): What Makes Small-Scale Farmers Participate in Financing Agricultural Research and Extension? Analysis of Three Case Studies from Benin. *The Journal of Agricultural Education and Extension* 15(3): 301-316.
- Müller, C. (2009): Climate change impact on Sub-Saharan Africa: an overview and analysis of scenarios and models. Bonn: Dt. Inst. für Entwicklungspolitik.
- Ndegwa, S. (2002): *Decentralization in Africa: A Stocktaking Survey*. Washington, D.C.: Worldbank.
- Neubert, S.; Kömm, M.; Krumsiek, A.; Schulte, A.; Tatge, N.; Zeppenfeld, L. (2011): Agricultural development in a changing climate in Zambia: increasing resilience to climate change and economic shocks in crop production. Bonn: Deutsches Institut für Entwicklungspolitik.
- Niamir-Fuller, M. (1999.): *Managing mobility in African rangelands*. London: IT Publications.
- OECD (2006): *Promoting Pro-Poor Growth. Policy Guidance for Donors*. Paris: OECD.
- ; FAO (2015): *Agricultural Outlook 2015*. Paris: OECD.
- Ouma, S. (2010): Global Standards, Local Realities: Private Agrifood Governance and the Restructuring of the Kenyan Horticulture Industry: *Economic Geography* 86(2): 197-222.
- Paulus, I.; Heise, J.; Hirner, V.; Kiefer, B.; Schliephake, S. (2003): Réorientation des prestations de services en milieu rural: recommandations pour le choix et le suivi des organismes d'appui ; étude pilote au Cameroun. (K. Fiege, Ed.) (1. Aufl). Berlin: SLE.
- Peters, P.E. (2013): Land appropriation, surplus people and a battle over visions of agrarian futures in Africa. *Journal of Peasant Studies*, 40(3): 537-562.
- Potts, D. (2005): Counter-urbanisation on the Zambian copperbelt? Interpretations and implications. *Urban Studies*, 42(4): 583-609.
- (2015): Debates about African urbanisation, migration and economic growth: what can we learn from Zimbabwe and Zambia? Debates about African urbanisation, migration and economic growth. *The Geographical Journal*.
- Raleigh, C. (2014): Migration, Urbanization, and Political Power in Sub-Saharan Africa. *Annals of the Association of American Geographers* 104(2): 253-261.
- Ratha, D. et al. (2011): *Leveraging Migration for Africa. Remittances, Skills, and Investments*. Washington D.C.: World Bank.
- ; William, S. (2007): *South-South-Migration and Remittances*. World Bank Working Paper No. 102. Washington D.C.: World Bank.
- Rauch, T. (2006a): Fundamentals of African Agriculture. *Quarterly Journal of International Agriculture* 50(1): 9-28.
- (2006b): Zum Fortbestehen verurteilt. Kleinbauern in Ländern des Südens im Globalisierungsprozess. *Geographische Rundschau* 58(12): 46-53.
- (2012): Transformation mit Kontinuität: Afrikas Kleinbauern im fortwährenden Spagat zwischen Subsistenz und Märkten. In *50 Jahre Unabhängigkeit in Afrika. Kontinuitäten, Brüche, Perspektiven*. Köln: Köppe.
- (2013): Food Security, Agricultural Policy and the Role of Small-scale Farms. *Rural* 21, (04): 14-17.
- (2014): New Ruralities in the context of Global Economic and Environmental Change: Are Small-scale Farmers Bound to Disappear? *Geographica Helvetica* 69(4): 227-237.

- Reardon, T.; Tschirley, D.; Minten, B.; Haggeblade, S.; Liverpool-Tasie, S.; Dolislager, M.; Snyder, J.; Ujimba, C. (2014): Transforming of African Food Systems in the New Era of Rapid Urbanization and the Emergence of a Middle Class. In: Badiane, O.; Makombe, T. (2014): Beyond a Middle Income Africa: Transforming African Economies for Sustained Growth with Rising Employment and Incomes. ReSAKSS Annual Trends and Outlook Report 2014. Washington, D.C.: IFPRI.
- ReSAKSS/ECA (2011): Agricultural Productivity in the COMESA, ECA and IGAD: Status, Trends and Drivers. Johannesburg.
- Rettberg, S. (2009): Das Risiko der Afar: Existenzsicherung äthiopischer Nomaden im Kontext von Hungerkrisen, Konflikten und Entwicklungsinterventionen. Saarbrücken: Verl. für Entwicklungspolitik.
- (2015): Die Territorialisierung pastoraler Konflikte im Nordosten Äthiopiens. In: Korf, B.; Schetter, C. (eds): Geographien der Gewalt. Stuttgart: Teubner: 202-215.
- Rodney, W. (1981): How Europe underdeveloped Africa (Rev. pbk. ed). Washington, D.C: Howard University Press.
- Sander, C.; Munzele Maimbo, S.I. (2005): Migrant Labour Remittances in Africa: Reducing Obstacles to Developmental Contributions. Africa Region Working Paper Series No. 64. Washington, D.C.: World Bank.
- Schäfer, R. (2002): Gender und ländliche Entwicklung in Afrika. In: Aus Politik und Zeitgeschichte B (13-14): 31-38.
- Schmidt-Kallert, E. (2009): A New Paradigm of Urban Transition: Tracing the Livelihood Strategies of Multi-Locational Households: 319-336.
- Schubert, K.; Klein, M. (2011): Das Politiklexikon: Begriffe, Fakten, Zusammenhänge. 5., aktualis. u. erw. Aufl. Bonn: Dietz.
- Schutten, M. (2012): Livelihood diversity: causes of rural-urban Migration. Why Rwanda poverty classification does not explain migration flows. Master Dissertation. University of Utrecht and National University of Rwanda.
- Scoones, I. (2009): Livelihoods perspectives and rural development. *Journal of Peasant Studies* 36(1): 171-196.
- SDSN (Sustainable Development Solutions Network) (2015): Indicators and a Monitoring Framework for the Sustainable Development Goals Launching a data revolution for the SDG. Sustainable Development Solutions Network for the UN.
- Sen, A. (2000): Social Exclusion: Concept, Application, and Scrutiny – social-exclusion. <http://www.adb.org/sites/default/files/publication/29778/social-exclusion.pdf> (Retrieved May 27, 2015).
- Sippel, L.; Wöllert, F.; Klingholz, R.; Kiziak, T. (2011): Africa's demographic challenges: how a young population can make development possible. Berlin: Berlin Institute for Population and Development.
- Sitko, N.; Jayne, T.S. (2012): The Rising Class of Emergent Farmers: An Effective Model for Achieving Agricultural Growth and Poverty Reduction in Africa? Indaba Agricultural Policy Research Institute (IAPRI). Working Paper 69. Lusaka, Zambia
- (2014): Structural transformation or elite land capture? The growth of “emergent” farmers in Zambia. *Food Policy* 48: 194-202.
- Soto, H. de (2003): The mystery of capital: why capitalism triumphs in the West and fails everywhere else (1. paperback ed., [updated ed.]). New York, NY: Basic Books.
- Steinbrink, M. (2009): Leben zwischen Stadt und Land. Migration, Translokalisierung und Vulnerabilität in Südafrika. Wiesbaden: Verlag für Sozialwissenschaften.
- Tacoli, C. (2004): Rural-Urban Linkages and Pro-Poor Agricultural Growth: An Overview. Paper prepared for the OECD DAC POVNET. Helsinki workshop 17-18.06.2004.
- ; Mabala, R. (2010): Exploring mobility and migration in the context of rural-urban linkages: why gender and generation matter. *Environment & Urbanization* 22(2): 389-395.
- Tacoli, C.; McGranahan, G.; Satterthwaite, D. (2015): Urbanization, rural-urban migration and urban poverty. London: IIED Working Paper, March 2015.
- Teshome, W. (2014): Äthiopien – Zivilgesellschaftliche politische Arbeit in autoritärem Umfeld. In: Eberlei, W. (ed.): Zivilgesellschaft in Subsahara Afrika. Wiesbaden: Springer Fachmedien Wiesbaden: 73-104.
- Thébaud, B.; Batterbury, S. (2001): Sahel pastoralists: opportunism, struggle, conflict and negotiation. A case study from eastern Niger. *Global Environmental Change* 11(1): 69-78.
- Timmer, C.P. (1997): Agriculture and Structural Transformation in Developing Countries: A Survey of Research. *American Journal of Agricultural Economics* 79(2): 621-627.

- (2007): The Structural Transformation and the Changing Role of Agriculture in Economic Development: Empirics and Implications. http://iis-db.stanford.edu/pubs/22133/Timmer_wendt_lecture.pdf (letzter Aufruf: 21.07.2015).
- (2009): A World without Agriculture? The Historical Paradox of Agricultural Development. American Enterprise Institute for Public Policy Research 1.
- Toulmin, C. (2006): Securing land and property rights in sub-Saharan Africa: the role of local institutions. World Economic Forum 2005/2006. Davos.
- Tröger, S. (2004): Handeln zur Ernährungssicherung im Zeichen gesellschaftlichen Umbruchs: Untersuchungen auf dem Ufipa-Plateau im Südwesten Tansanias. Saarbrücken: Verl. für Entwicklungspolitik.
- Turner, M.D.; Ayantunde, A.A.; Patterson, K.P.; Patterson III, E.D. (2011): Livelihood transitions and the changing nature of farmer-herder conflict in Sahelian West Africa. *The journal of development studies* 47(2): 183-206.
- United Nations Department for Economic and Social Affairs (2013): Population Facts 2013. New York: UN.
- United Nations Environment Programme (UNEP) (ed.) (2008a): Africa: atlas of our changing environment. Nairobi, Kenya: UNEP.
- (2008b): Vital Water Graphics – An Overview of the State of the World's Fresh and Marine Waters. 2nd Edition. Nairobi, Kenya: UNEP.
- (2010): Africa Water Atlas. Division of Early Warning and Assessment (DEWA). Nairobi, Kenya. In: Van Der Ploeg, J.D. (2010): The Food Crisis, Industrialized Farming and the Imperial Regime. *Journal of Agrarian Change* 10(1): 98-106.
- Walle, N. van de (2009): The Democratization of Political Clientelism in Sub-Saharan Africa (3rd European Conference on African Studies). Universität Leipzig.
- Wennink, B.; Nederlof, S.; Heemskerk, W. (2007): Access of the poor to agricultural services. *Bulletin* 376.
- Whitehead, A.; Tsikata, D. (2003): Policy Discourses on Women's Land Rights in Sub-Saharan Africa: The Implications of the Re-turn to the Customary. *Journal of Agrarian Change* 3(1-2): 67-112.
- Whitfield, L. (2011): Competitive Clientelism, Easy Financing and Weak Capitalists: The Contemporary Political Settlement in Ghana. Copenhagen: DIIS Working Paper.
- Wiggins, S. (2014): African Agriculture is Growing, but is it Transforming? www.future-agricultures.org/blog/entry/african-agriculture-is-growing-but-is-it-transforming (Retrieved 2014, February 3)
- ; Keats, S. (2015): Topic Guide: Stepping out of agriculture. Evidence on Demand. <http://www.evidenceondemand.info/topic-guide-stepping-out-of-agriculture> (letzter Aufruf 15.11.2015)
- Wily, L.A. (2011): "The Law is to Blame": The Vulnerable Status of Common Property Rights in Sub-Saharan Africa: Common Property Rights in Sub-Saharan Africa. *Development and Change* 42(3): 733-757.
- World Bank (ed.) (2007): World development report 2008: agriculture for development. Washington, D.C. : London: World Bank, Eurospan [distributor].
- (2009): Reshaping economic geography. Washington, D.C: World Bank.
- (2014): Africa's Pulse. Volume 10. Washington, D.C.: World Bank.
- (2014): World Development Indicators 2014. Washington D.C.: World Bank.

Annex

Table 8: Comparison of urban and rural population growth in selected countries of Sub-Saharan Africa and country groups

	2015 Projection					2030 Projection					2015-2030 Change in millions			2015-2030 Change in percentage		
	Total in millions	Rural (%)	Urban (%)	Rural in millions	Urban in millions	Total in millions	Rural (%)	Urban (%)	Rural in millions	Urban in millions	Total	Rural	Urban	Total	Rural	Urban
World	7324,8	46	54	3367,5	3957,3	8424,9	40	60	3366,8	5058,2	1100,2	-0,7	1100,9	15	0	28
North Africa	177,5	44	56	78,8	98,7	211,1	40	60	83,8	127,3	33,6	5	28,6	19	6	29
SSA	988,8	62	38	615,9	372,9	1423,3	55	45	780,5	642,8	434,5	164,6	269,8	44	27	72
Benin	10,9	56	44	6,1	4,8	15,5	49	51	7,6	8	4,6	1,5	3,2	43	24	66
Ethiopia	98,9	81	19	79,7	19,3	137,7	73	27	100,8	36,9	38,7	21,1	17,6	39	26	92
Zambia	15,5	59	41	9,2	6,4	25	52	48	12,9	12	9,4	3,8	5,7	61	41	90
Least Developed Countries	940,1	69	31	644,9	295,2	1287	61	39	781,6	505,4	346,9	136,7	210,2	37	21	71
Other Developing Countries	5116	48	52	2447,8	2668,2	5833,1	40	60	2344,2	3488,8	717,1	-103,6	820,6	14	-4	31
Developed Countries	1258,7	22	78	274,8	993,9	1304,8	18	82	240,9	1063,9	36,2	-33,8	70	3	-12	7

Source: own presentation; data in Herrmann (2015)

Table 9: Suggested sustainability indicators for SDSN open working group		
Target	Aim No.	Indicators in SDG (mostly from productivity side regardless of availability)
Sustainable agriculture	2, 12	<ul style="list-style-type: none"> ▪ Crop/yield gap ▪ Effectiveness of nitrogen (N/crop) ▪ Water management efficiency (crop per drop) ▪ Cereal yield growth rate, livestock yield gap ▪ Genetic diversity in agriculture (to be developed) ▪ Indicator on irrigation gap (to be developed) ▪ Number of agricultural advisers per 1000 inhabitants ▪ Access to genetic resources (to be developed)
Sustainable forest management	15	<ul style="list-style-type: none"> ▪ Annual ratio forest/cultivated land ▪ Sustainably managed forest areas ▪ Preservation of mountain forests (to be developed) ▪ Enhanced forest use rights ▪ (traditional) environmental knowledge in the population ▪ Funds for sustainable forest management (to be developed)
Sustainable water management	6	<ul style="list-style-type: none"> ▪ Used share of total water resources ▪ Share of purified and re-used waste water resources (to be developed) ▪ Indicator for water resource management (to be developed)
Sustainable soil management	15	<ul style="list-style-type: none"> ▪ Change in degraded or devastated areas
Sustainable biodiversity management	15	<ul style="list-style-type: none"> ▪ Red List Index und Living Planet Index ▪ Protected areas (Area) ▪ Funds to maintain biodiversity ▪ Funds to maintain ecosystems (to be developed) ▪ Prosecution for poaching and illegal trade of Red List species (to be developed)
Sustainable pasture management		<ul style="list-style-type: none"> ▪ No indicator ▪ Spread of invasive plant species (no immediate reference to pastures)
Source: SDSN, 2015, Table 1: Suggested SDD Indicators, pp. 29ff.		